

INTERSTATE MEDICAL JOURNAL.

VOL. XI.

MAY, 1904.

No. 5.

ORIGINAL ARTICLES.

HUMAN EMBRYOS.

THEIR VALUE, METHODS OF PRESERVING AND SECTIONING.

BY A. C. EYCLESHYMER, of St. Louis, Missouri,

DIRECTOR OF ANATOMICAL DEPARTMENT, ST. LOUIS UNIVERSITY.

In the entire domain of animal morphology there is no province in which the investigator is so directly dependent upon the physician as in that of human embryology.

Since 1837, when Karl Ernst von Baer's "*Epistola de ovi Mammalium et Hominis genesi*," marked the dawn of this branch of morphology repeated appeals for collaboration have been made.

The generous responses have made possible such works as those of Coste, His, Giacomini, Minot, Mall, Kollmann and others, and have further linked inseparably with the progress of morphology the names of many physicians, notably: Drs. Greppin, Ecklin and Muench, of Basle; Drs. Lomer and Leopold, of Leipzig; Dr. Glavecke, of Kiel; Dr. Kirtledge, of Nassau, New Hampshire, and Dr. Garrigues, of New York.

Although we have acquired a vast amount of information, there still remain fields almost entirely unexplored. We know little concerning maturation and ovulation, and nothing regarding fertilization, segmentation or gastrulation. As to fetal membranes, recent researches show that the entire subject needs further study. Concerning the systemic changes beyond the second month, embryology is practically silent. Not a single organ has been followed from the time of its first appearance until it has reached the mature condition. Not only should the various organs, tissues and cells be followed up to maturity, but also from this period on until senile death. In other words, we should know in these various structures the successive changes going on during their entire life cycles.

The entire field of human teratology invites renewed study, especially in the light of the recent discoveries in comparative experimental embryology. We know that gravity, temperature, various light waves, osmotic changes, different gases, chemical substances, electric currents, magnetism, mechanical shocks and other environmental factors profoundly influence the growth processes. Through experimental methods

we are able to produce in the lower animals a large number of the specific malformations catalogued for the human species. In some cases we are able to say precisely what external factors produce a given malformation. One of the lines of work for the immediate future, then, is the determination of the specific causes of the various malformations. Understanding the causes we may be able to prevent their occurrence. Or having occurred, we may be able to provide correctives. Many other lines of investigation could be pointed out which would further emphasize the fact that *both normal and pathological embryos are of great value.*

The next important consideration is preservation. Although a large number of embryos come into the hands of the embryologist, through the generous aid of the physician, many are so poorly preserved that they are practically worthless. In preserving material the following points should be kept in mind: Handle the specimen as little as possible. Never allow it to lie in water. If no preservative be at hand it may be gently wrapped in cloth and put on ice. As soon as possible place the unopened membranes, containing the embryo, in the strongest alcohol which can be obtained; or, still better, in a solution of nine parts water to which is added one part of formalin. One of the best fixing solutions for cell details is a saturated aqueous solution of corrosive sublimate to which is added about one per cent. of acetic acid. Always have ten times as much fluid as material to be preserved.

Material fixed in strong alcohol should be transferred to about 80 per cent. alcohol for final preservation. That fixed in 10 per cent. formalin should be passed through 35 per cent., 50 per cent., 70 per cent., and finally preserved in 80 per cent. alcohol. If the embryo be fixed in corrosive sublimate-acetic, it must be soaked in iodized 70 per cent. alcohol for many hours to remove the sublimate crystals, when it is transferred to 80 per cent. for final preservation.

Small embryos may be stained *in toto* and embedded in paraffin. The best method, however, is to use celloidin as an embedding mass, since it admits of section staining in various ways. The superiority of celloidin over all methods requiring heat is unquestioned, yet its manipulation has been attended by many difficulties. Some years ago the writer devised a method which has since come into very general use.* Since it is still superior to other methods of handling serial sections in celloidin it may not be superfluous to repeat here its essential features.

The prepared shreds of celloidin, which are obtained from any dealer in microscopical supplies, should be placed in an air-tight chamber; a four-ounce salt-mouth bottle being very suitable for this purpose. Pour into this bottle just enough ether-alcohol (equal parts acid-free, sulphuric ether and absolute alcohol) to cover the fragments. The ether-alcohol should be added at intervals until after occasional shaking all the shreds are dissolved, which may take several days. This stock solution should

* American Naturalist, 1892, Vol. XXVI, pp. 354-358.

possess finally the consistency of very thick molasses. This solution should be labelled No. 4. The next solution (No. 3) is obtained by taking two volumes of No. 4 and diluting by the addition of one volume of ether-alcohol. No. 2 is obtained by proceeding in like manner with No. 3. While No. 1 is the original mixture of ether and absolute alcohol in equal parts.

The saturation and final embedding is accomplished as follows: The object is transferred from 95 per cent. alcohol to solutions 1, 2, 3, 4, successively, in each of which it remains from a few hours to days, depending upon the size and permeability. For pieces of tissue 2 mm. in diameter, twenty-four hours in each will generally suffice. For a large brain—*e. g.*, that of a cat, a week in each will not be too long. In embedding, unless careful orientation is desired, the ordinary paper box is best. A thin plate of lead may be placed in the bottom, or as pointed out in following paragraph, this may be omitted. The object is taken from the thickest celloidin and placed in the box in position. If desired,

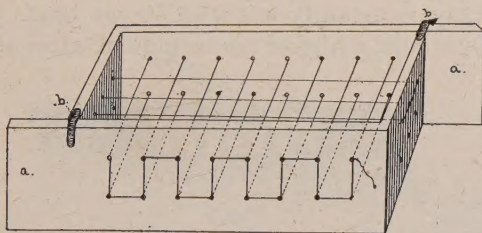


Fig. 1.

fine insect pins or needles may be passed through the box to support the object.

For hardening the celloidin, the method given by Viallanes of immersing in chloroform is best, since the hardening is more rapid than in alcohol. Instead of completely immersing in chloroform the box may be only partly immersed, in which case it is unnecessary to weigh it. After the celloidin mass is thoroughly hardened, the paper is cut from the mass and it is transferred to 70 per cent. alcohol for a few hours. It is now ready to fix on a block of wood or pressed paper. The blocks are cut to fit the clamp of the microtome. Solution No. 3 is poured over the end of the block and into this the hardened celloidin mass is pressed, after dipping its under surface in solution No. 1. The celloidin mass is thus cemented to the wood block, and after a few minutes' exposure to the air is held tightly in position. The block and its attached celloidin mass should then be transferred to chloroform until the cementing celloidin is hardened.

Reconstruction points are often very desirable. For this purpose the ordinary metallic embedding box (Fig. 1), made of two L-shaped pieces

(*a* and *a*), held in place by the overlapping strips (*b*), can be advantageously used. The ends and sides are perforated in as many places as desired by a very small drill. These holes should be so drilled that the silk threads which are drawn through them run parallel. After being tightly drawn, they are cemented to the sides of the box by a drop of celloidin. A piece of thread two or three inches long should be left hanging. The bottom of the box is made by fitting in a piece of heavy blotting paper. The object is now placed upon the threads in the desired position and the embedding mass poured in. As soon as hardened, after the method described above, the celloidin drops holding the threads in position are dissolved by a drop of ether-alcohol. The loose ends of the threads are soaked in a solution of celloidin No. 2, containing lamp-black. The threads are then drawn through the celloidin. The lamp-black adheres to the celloidin mass, so that when the sections are cut the lampblack remains as black rings, which form most excellent reconstruction points.

In cutting, care should be taken that the knife is placed as obliquely as possible and kept constantly wet with 70 per cent. alcohol. In case the sections should roll, a higher percentage of alcohol should be used.

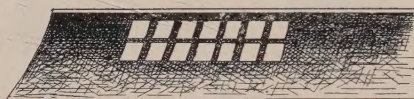


Fig. 2.

In wetting the knife, the ordinary dripping apparatus cannot be used. As a substitute, an ordinary pipette provided with a large bulb is best. As fast as cut the sections are drawn back on the blade of the knife and arranged in single rows until the blade is filled, somewhat as shown in Fig. 2. To remove the sections a piece of ordinary toilet paper, the size of the slide to be used, is wet in alcohol and placed directly upon the sections, and to which they adhere. They are then drawn off the back of the knife and placed on the slide. The strip of toilet paper holding the sections on its under surface is then held in position by winding with a fine thread. Often one experiences some difficulty in getting all the sections off the slide at once, especially if the knife be not perfectly polished. If preferred, the sections may be removed from the knife singly. This can be done by using a heavy paper spatula, which is placed directly upon the section, to which it adheres, and may then be transferred to the slide; by slight pressure, together with a gentle rolling movement, the section is left in the desired position. The strip of toilet paper may then be placed over the sections as before.

Sections thus firmly held in position on the slide may be stained, decolorized, counter-stained, cleared, etc. Celloidin sections should never

be placed in absolute alcohol, but cleared from 95 per cent. in a mixture of equal parts cedar oil, bergamot oil and carbolic acid. When cleared, the excess of fluid is removed by a piece of blotting paper, the threads cut and the strip of toilet paper rolled back, as shown in Fig. 3, balsam and cover applied. Should some of the sections adhere to the toilet paper when it is rolled back, it is necessary to bring the strip of paper back and gently press upon those sections which have remained attached; by repeating this process it is not difficult to cause these sections, like the remainder, to adhere to the glass.

If the object can be stained *in toto*, which is often the case, much time may be saved by the following method: The stained object is embedded in the usual manner, but after hardening in chloroform it is transferred to 95 per cent. alcohol for twenty-four hours and then to the clearing mixture; it is fixed to the block in the manner named above. The block and its attached celloidin mass is then placed in the above named clearing mixture until it becomes as transparent as glass. The object can



FIG. 3.

now be oriented with ease. In cutting, the knife is wet with the clearing mixture. The sections are arranged in serial order on the knife blade until a slide full is obtained, when they are transferred by a strip of paper, the paper rolled back and balsam and cover applied.

From small objects where reconstruction points are not needed the following method may be advantageously employed: The heads are clipped from fine insect pins, which are then placed in handles in such a way that they may be easily removed. On these pins the objects are oriented in the desired position; the pins are then removed from the handles and fixed in cork (Fig. 4) previously perforated by a somewhat larger pin. As fast as the pins carrying the objects are inserted the cork is replaced in the specimen vial, which is filled with alcohol. A half dozen fish or amphibian ova may be oriented on the same cork. If desirable to draw the objects *in situ* a piece of lead may be pinned to the cork and the whole immersed in a small beaker of alcohol. The corks carrying the oriented objects are transferred successively to vials containing the different solutions. When ready for final embedding a piece

of porous paper is wrapped about the vial and cork and pinned to the cork. The cork is now removed, allowing the embedding solution to fill the paper tube thus formed. A lead is fastened to the cork and the whole placed in chloroform until hardened, after which the paper is cut from the mass and the pins drawn through the cork, when it is ready for sectioning. This method offers many advantages, in that several objects may be cut at the same time; drawings may be made after orientation.



Fig. 4.

The writer has given these methods with the hope that they may be of some service to the physician in utilizing the valuable material which so frequently comes into his hands. If the physician cannot spare the time to investigate this material he is in position to greatly aid embryology by loaning or donating such material to the embryologist.

As a final word, it may be permissible to say that the department of anatomy of St. Louis University is doing research work in these lines, and that its members would highly appreciate the co-operation of those physicians who are interested in facilitating and encouraging investigations in human embryology.

THE USE OF THE WIRE NAIL IN JOINT FRACTURES—WITH
REPORT OF TWO CASES.

BY NATHANIEL ALLISON, M. D., and HAROLD W. JONES, M. D.,
of St. Louis, Missouri.

CASE I.—Boy of fifteen on November 30, 1903, fell from a ladder a distance of twelve feet, striking, as far as could be learned, directly on his right shoulder. He was seen a few hours after the accident and a diagnosis of subcoracoid dislocation of the humerus made, since what was apparently the head of the humerus was felt beneath the coracoid process. At that time there was considerable swelling, which rather obscured the landmarks. An anæsthetic was given and an attempt made at reduction; during this, crepitation was felt, and it was deemed advisable to have the patient skiagraphed immediately, as a fracture was suspected. Plate No. 1 is the skiagraph, which, of course, immediately removed all doubts as to the nature of the injury, since it showed an unmistakable fracture at the surgical neck of the humerus with forward and upward displacement of the lower fragment.

Operative treatment was at once decided upon, as it was deemed useless to attempt reposition by manipulation. The dangers of any manipulations, with the possibility of injury to the nerves and blood vessels, were thoroughly appreciated. The patient was accordingly removed to the hospital and prepared for operation, which was done the following day.

Operation forty-eight hours after injury. The patient was etherized, a pad being placed under the shoulders, and an incision four inches long made, beginning one-half inch above the tip of the acromion, and continued directly downward in the middle of the deltoid. This is not the usual incision for exposing the shoulder, but the bruised condition of the tissues anterior to it made it necessary. This was carried down to the capsule, and the whole field was exposed rapidly by blunt dissection. The circumflex nerve was seen and carefully avoided. The upper end of the lower fragment was found about one inch anterior and slightly external to the head. There was a small rent in the lower part of the capsule, which was opened to expose the head fully. The joint cavity was cleared of blood clots, and it was then attempted to replace the lower fragment and secure apposition between it and the head. This was accomplished with some little difficulty, so much had the muscles contracted. It was finally accomplished by having an assistant make downward traction on the arm, while the operator, placing a flat periosteum elevator, three-fourths inch wide and rather thin, into the joint cavity, up against the lower end of the upper fragment, forced the upper end of the lower fragment down this improvised inclined plane into place. This instrument prevented the lower fragment from overriding the upper

during reposition. The apposition was excellent, but in order to run no risk of further displacement a wire nail (an ordinary French round nail) two and three-fourths inches long was driven through the head down into the shaft, taking care to drive it well into the cortex. It held beautifully, and the head rotated as the arm was moved quite as it should normally; that is, the anatomical restoration was perfect. The capsule was closed with interrupted fine silk, and the torn periosteum sewn

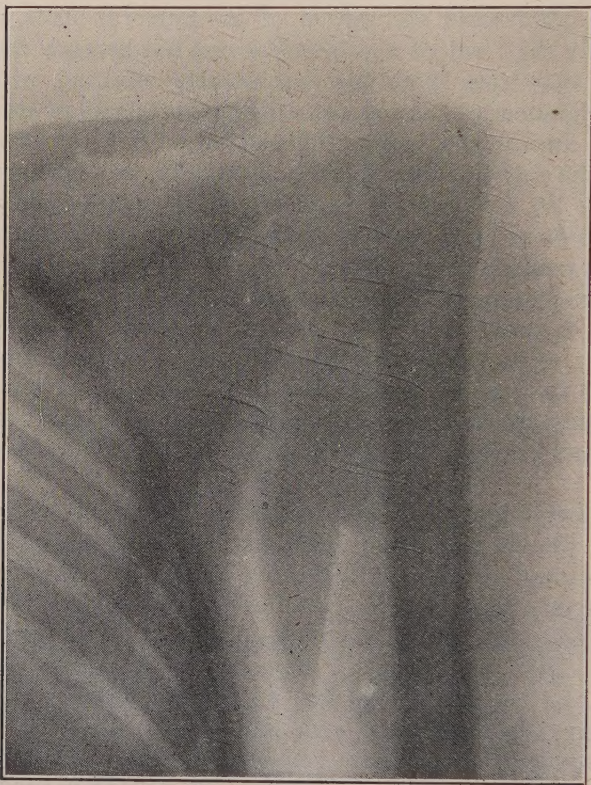


PLATE 1.

in the same way. The deltoid, which had been cut, was repaired with interrupted catgut, the wound wiped perfectly dry and all bleeding points secured. Wound closed with continuous fine catgut. Put up in plaster shoulder cap, going all the way round the body and down to the elbow. Velpeau bandage. Good recovery.

The case progressed without cause for comment. By the third day the patient was up and about, and left the hospital on the sixth day with a normal pulse and temperature. On the tenth day a window was cut in

the plaster and the wound found to have healed by first intention throughout its extent. On the twenty-sixth day the plaster was removed, and a few days later all bandages were discarded. At this time there were about twenty degrees of abduction, which steadily increased under passive movement daily. In a week or two active movements were given and motion in the joint steadily increased. At this time, three and one-half months after operation, the boy uses the right arm nearly as well as

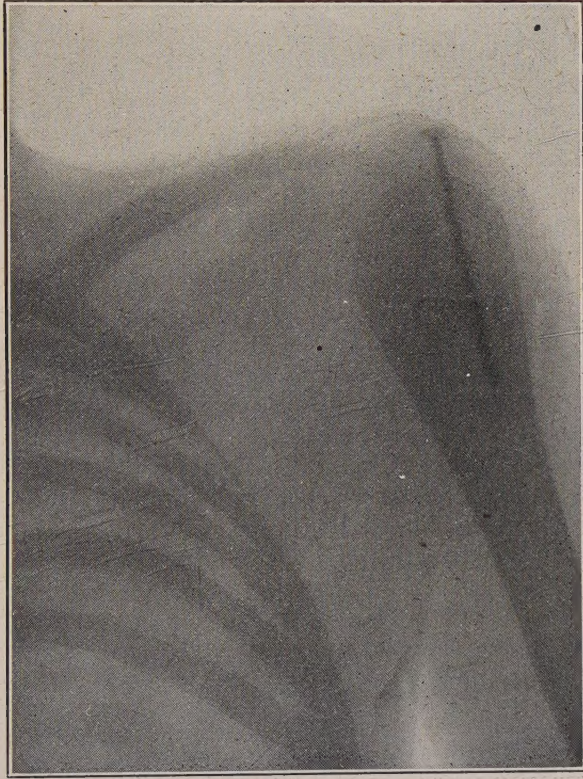


PLATE 2.

the left, rotation being perfect. The motion in abduction is still limited about one-third, but the patient is gradually overcoming the limitation in this direction. The nail can be felt, but gives no trouble. It may be necessary to remove it later. Plate No. 2 shows the condition thirty days after operation.

CASE II.—Man of thirty-four years. Twelve years ago in Germany received a fall fracturing his right hip. Was treated in a hospital in Berlin, the method of treatment being a plaster spica. He recovered in six

weeks with an actual shortening of two and three-fourths inches. The man sought treatment on account of the lameness incident to this shortening, which made it necessary for him to wear a high sole. Examination showed a healthy young German of good muscular development, the only abnormality being the condition in the right hip. There was an enormous projection of the great trochanter, its upper margin being fully two and one-fourth inches above Nelaton's line. Motion in the

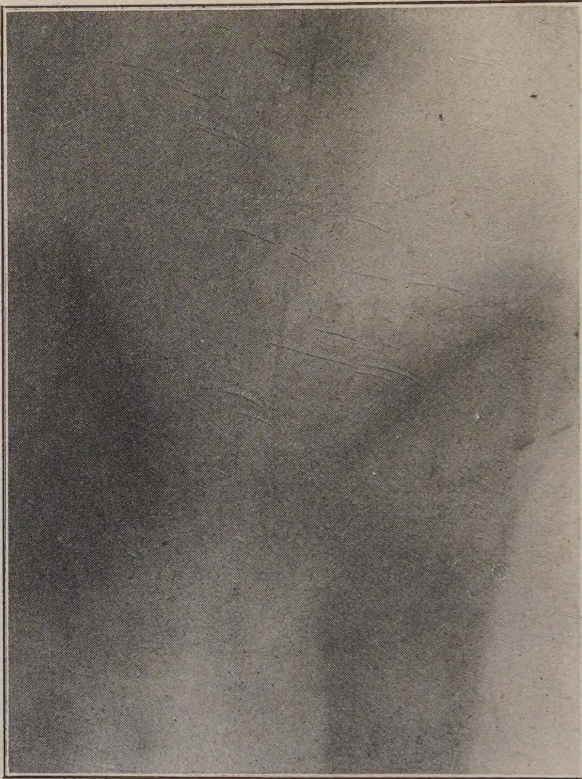


PLATE 3.

joint was found to be about forty-five degrees in flexion and five or ten degrees in abduction, although the limb was held in a position of adduction. There was great thickening throughout the joint and one and one-half inches atrophy of the right thigh. A skiagraph was taken (Plate No. 3), which showed an extreme coxa vara, produced by vicious union following a fracture of the femoral neck.

Operation was advised for alleviation of the deformity and the patient entered the hospital immediately. Operation performed on January 24,

1904. Patient in left latero-prone position with the right hip slightly flexed. A curved incision eight inches long made, with its convexity upward, its upper limit being about one-half inch above the upper margin of the great trochanter. This was carried directly down to the joint, dividing in line with the skin incision, the fascialata, gluteus maximus, gluteus medius and gluteus minimus. The pyriformis and obturators were retracted, capsule exposed. The capsule was then divided in the

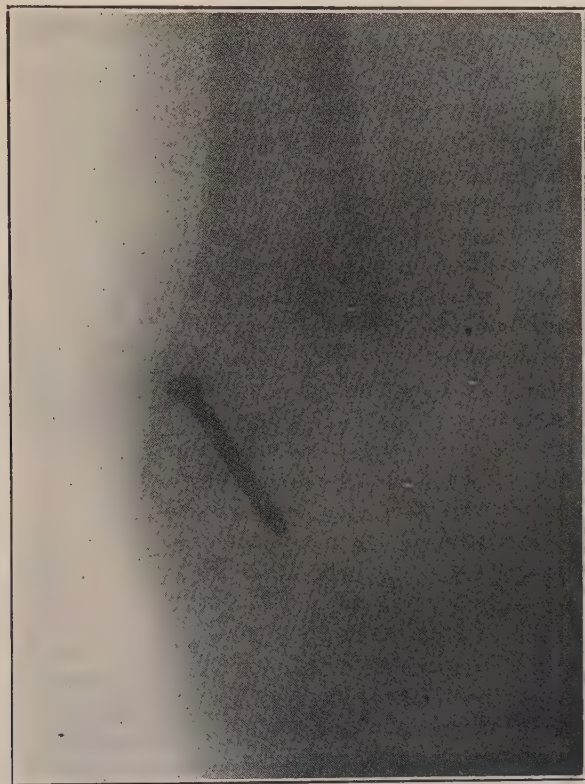


PLATE 4.

same line, exposing the neck of the femur, the condition of which was as shown in Plate No. 3. With an osteotome, a wedge-shaped piece, its base uppermost, one-half inch wide, was removed from the neck. The removal of this wedge divided the outermost portion of the neck completely from the shaft. The limb was abducted about twenty degrees, but as this seemed insufficient to accomplish the necessary correction, another wedge of bone was removed from the neck which allowed fifteen degrees additional abduction, about forty degrees, in all.

Strong traction was then exerted by an assistant, and while still held in extreme abduction a wire nail three inches long was driven through the great trochanter and neck. This held the fragments in excellent apposition and assured their remaining so. The capsule was then closed with catgut, and the divided muscles united in layers with chromicized catgut, after which the wound was closed. As an additional safeguard, the adductor longus was divided subcutaneously near its origin. A plaster of Paris spica was then applied from toes to umbilicus holding the leg in forty degree abduction. The patient made a good recovery.

The patient made an uneventful convalescence, and remained in bed five weeks. He was not given crutches and treated as an ambulatory patient, on account of the extreme abduction. At the end of five weeks the plaster was removed and the wound found healed by first intention. Inspection showed that the deformity—that is, the extreme prominence of the great trochanter—was no longer apparent. Careful measurement showed that there existed but one and one-fourth inches shortening, as against two and three-fourths which was originally present. Motion in flexion was allowed to about ten or fifteen degrees without pain. Union seemed perfect. A short spica was now applied, and the patient given crutches. In another week all dressings were removed and a skiagraph taken (Plate No. 4). In this picture the nail presents a foreshortened appearance on account of the outward rotation of the foot. In another week the patient discarded crutches and walked with a cane. At the expiration of eight weeks from the time of operation the patient began to walk without any support, and is now able to get about with very little disability. The motion in the hip is still limited, but is gradually increasing, and the patient is much gratified over the outcome. Indeed, he thinks that his crippled leg is now as long if not longer than the other.

The operative treatment of fractures involving the joints is of particular interest, since it aims to prevent serious deformity and loss of function in the case of fresh fractures, and to relieve a corresponding condition in old fractures where vicious union has occurred. That fractures into joints are generally accompanied by considerable deformity and often by permanent disability must be admitted as a fact, and that the poor or indifferent results are due to inadequate treatment; that is, non-approximation or faulty approximation of the fragments may at least be presumed. Attempts at manual reduction are often ineffectual, and are not infrequently accompanied by considerable danger; moreover, if reduction is accomplished, and the fragments are approximated, their maintenance in proper position depends upon a retentive dressing or traction, whose usefulness is oftentimes eliminated by some slight external cause. In operative treatment we have the advantage of dealing with the fragments directly and of placing them in what we know to be the proper position, and of holding them there.

In the two cases reported, an inspection of the radiographs will show how impossible it would have been to accomplish anything by non-operative treatment. Case No. 2, in fact, shows the result of non-operative treatment. We assume that in this case everything was done that could be done in a non-operative way, yet the result was an extreme and distressing deformity.

Scudder,¹ in his excellent work on fractures, in referring to fractures of the surgical neck of the humerus, advises operative procedure where manual reduction fails. He advocates the use of silver wire to hold the fragments in position. To the writers, silver wire has certain faults: it requires the boring of holes which must correspond, the passage of the wire which is often troublesome, the twisting of the wire sometimes results in its breaking, and, lastly, it often fails to hold the fragments firmly, thus throwing the responsibility of holding them in approximation, upon a frail wire and the retentive dressing. Some more stable bond of union between the fragments would, therefore, seem advisable, and to this end the writers have used a wire nail, which presents the obvious advantages of being easily driven into position with a few strokes and in a few seconds, and when once in position, of holding the fragments in approximation with admirable firmness, reducing the liability of subsequent displacement to a minimum. In case No. 2, where the hip was involved, a wire would have been most difficult to apply and would have been, at the best, of doubtful efficiency.

Whitman² recognized and pointed out the necessity of operative treatment of traumatic coxa vara. He advises forced abduction with maintenance in a plaster spica in fresh fractures in children, and cuneiform osteotomy, followed by the same treatment in old cases. He does not mention wiring or pegging the fragments as of necessity. In children doubtless union will occur in such cases, even if approximation of the fragments is not perfect. With adults the all too common result of non-union in fractures of the femoral neck would seem to indicate that the foregoing procedure is necessary.

A skiagraph, which will show the conditions definitely, is absolutely necessary in these cases before operative treatment, or, indeed, any treatment, is undertaken.

The writers wish to thank Dr. Willard Bartlett of this city for his advice in these two cases.

REFERENCES.

1. Scudder: *The Treatment of Fractures*, 4th Edition.
2. Whitman: *Orthopedic Surgery*.
3. A. J. Gillette: *An Operation for Ununited Fracture of the Neck of the Femur*. *Trans. of American Orthopedic Association*, vol. xi.

FIXATION OF THE KIDNEY WITH REGARD FOR ITS
PHYSIOLOGICAL EXCURSION.*

BY VILARY P. BLAIR, M. D., of St. Louis, Mo.

Any man who thinks he has discovered or contrived something new under the sun sets himself at variance with the wisdom of Solomon, and must not be disappointed when he finds that he is mistaken. I will make this difficulty of finding something new my excuse for presenting a somewhat threadbare subject.

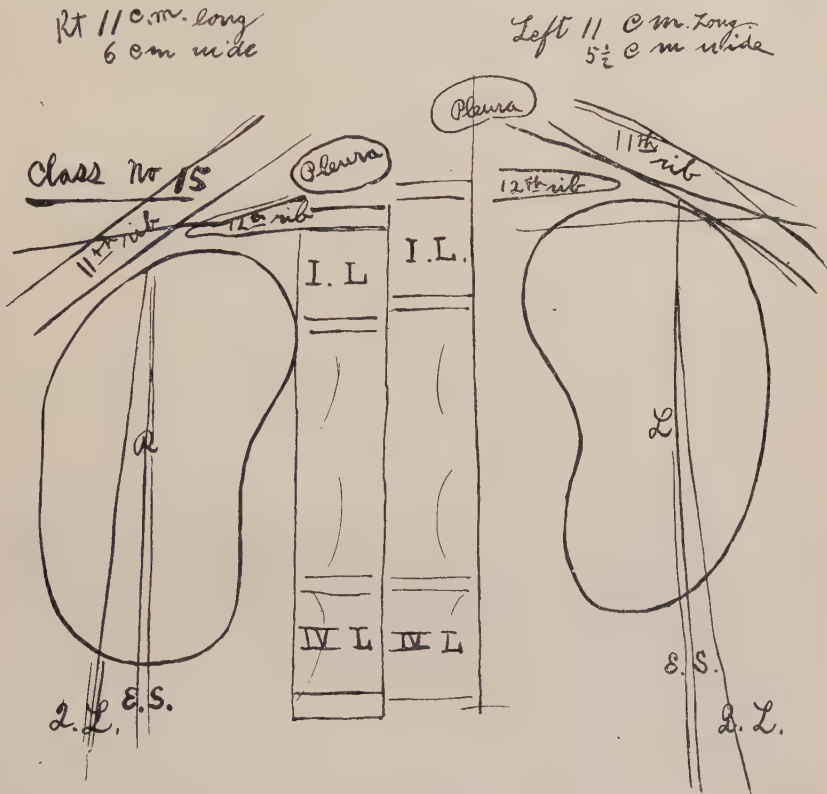
Until recently I did not know that previous to August, 1902, any attempt at fastening a kidney by means of ligaments made from its fibrous capsule had been reported, but in the *Medical Record*, January 22, 1901, Arnold Sturmdoff tells of such a method which he had employed, and calls attention to a report of the same structure being used by Robert T. Morris, who in turn had seen a description of an operation of the same kind somewhere in German literature, but he had forgotten the author. Before describing the technique proposed, it might be well to review some of the factors that have been productive of such a vast number of different operations, which very number is suggestive of the fact that none of them can be perfect.

He who would correct a deformity should first have a definite idea of the normal, and also know wherein the abnormal varies. Herein seems to be the first stumbling block. The percentage of occurrences of movable kidney is stated by various statisticians as being from one-tenth to forty per cent., varying with the opportunities, skill and mental attitude of the observer. Any true explanation of the discrepancy in these figures may throw some light on the subject, and I hope I may be pardoned, therefore, for the following digression.

The percentages referred to are drawn from different classes of individuals, and made by different kinds of observers. The least per cent., one-tenth, is the result of post-mortem observation. The highest comes from the observations of the gynecologists and men who have in charge sanitarium for neurotic women. This gives us the first hint. Men doing autopsies as a rule are not seeking carefully for the detection of the condition, and probably will not notice it unless it is very pronounced, and, besides, the subjects of autopsies have in most instances been in bed for some days or weeks before death, the kidney having had a chance to assume a normal or nearly normal position. On the other hand, this condition is more common in women than in men. In women the narrowness of the upper part of the abdominal cavity, the bony walls of which impinge upon the subjacent viscera in every motion of bending or turning, the kidneys find a welcome in the breadth of the lower abdomen and false pelvis. As movable kidney may cause symptoms for the relief of

* Read before the St. Louis Surgical Club, February, 1904.

which the patient seeks a gynecologist, a neurologist or a rest-cure sanitarium, and as these men are on the alert to discover this condition, and



The above is a copy of a specimen of the record sheets that are kept by the students in the anatomical laboratory of the Washington University. For this particular record a hectographic diagram of the two kidneys is given for each subject, with written request that the student indicate on it—the relations of—

First—The location of the twelfth ribs.

Second—The relation of the vertebræ to the kidneys.

Third—The lines of reflection of the pleura from the diaphragm.

Fourth—The relation of the outer borders of (a) the quadratus lumborum (b) the erector spinal muscles to each kidney.

Each record is signed both by the student making the record and the demonstrator who checks up the work. The records are filed for reference with the other records from the same body, and it is upon a collection of these records that the anatomical data is based.

are particularly expert in detecting it, their percentage of findings will be very great.

Another thing which has a bearing is the lack of uniformity in the definition of what constitutes a "movable kidney." While some men

will count as pathological every kidney whose excursion can be detected by manual palpation along the ribs, most men concede that the kidney has a natural excursion corresponding to the movements of the diaphragm. It must follow that in a certain group of cases the man who regards every tangible excursion as pathological will find a larger number of "movable" kidneys than will the man who considers that a certain amount of motion is normal. Waterson, of Boston, gives the extent of this normal excursion as being between one-half and one and one-half inches, while Byron Robinson places the limit at three inches.

An unsettled point which has a direct bearing on this, is the natural position of the kidney in the loin. This is variously stated as being any where from in front of the last two ribs to below the ligamentum arcuatum externum.

Our dissecting room records show that between the limits of the eighth rib and the ilium the kidney has no regulation position. It may lie with its upper pole in front of the last two ribs more often than in any one other position, but this rule is not very apparent.

If you grant that the kidney has various normal positions, and that the principal structure in retaining it is the upper part of the fatty capsule and the peritoneal reflexion from the diaphragm, you will have the key to the varying conjectures as to the extent of its normal excursion, for the higher its location the higher on the diaphragm it will be attached, and the higher on the diaphragm the more movement will there be with each respiration; on the other hand, the higher the location of the kidney the more difficult will it be to detect this motion by palpation. These facts must tend to show the uncertainty of preoperative statistics, and I believe that in many instances post-operative statistics are just as unreliable.

First, the great majority of cases cannot be observed sufficiently long to be sure that the new anatomical relations are permanent. As a rule a surgeon does not have a chance to observe remote poor results in his own cases.

Second, the symptoms for which the operation is often done come under the head of "nervous," and usually with the operation is instituted treatment and education for the palliation or cure of these nervous symptoms.

We must beware of accepting statistics either as to the anatomical or physiological results of the operation in other instances than where the kidney has an excursion limited only by the structures attached to its pelvis, and where the symptoms are unmistakably the result of tension, torsion or bending of these structures, or of pressure upon the neighboring viscera, and I do not think this embraces the majority of cases operated upon. If these statistics are not reliable we are still justified in indulging in theories based upon anatomical facts.

This natural excursion of the kidney is of the greatest interest to the

men who propose to fix the organ because, first, this must be determined before a slight excursion can be said to be pathological. Second, if any excursion is normal, then any operative procedure which has for its purpose the absolutely stationary fixing of a kidney in the lumbar region in a manner that is abnormal must be viewed with question, and we must not be totally unprepared for failures following such a procedure. Failures may be of two kinds: first, those in which the kidney breaks away from its anchorage, and, second, those in which the symptoms are not relieved though the kidney is retained. Failures of the second kind are probably more often due to a poor diagnosis than to faulty technique; but any operation that has for its purpose the stationary fixing of the kidney, and which is successful in this purpose, must be responsible for some of the failures of both kinds. An organ that has a slight excursion is better able to avoid the damaging effects of applied force and to correct faulty rotation on its own axis which interfere with its blood supply and the drainage of its excretions. George H. Mallett, of New York, ascribes many failures of the second kind to a rotation outwards of the kidney on its long axis accompanied by pulling at the vessels and kinking of the pelvis, which result from the fixing of the outer border of the kidney in a lumbar wound. The vast number of reliefs reported to have followed such techniques must make one hesitate to offer criticism other than that the operator was probably not entirely successful in his attempt at absolute fixation of the organ, and that nature adjusted the fastening sufficiently to allow proper function. Some operators have attempted to imitate nature more closely by restoring the continuity of the natural fastening of the kidney by its fatty capsule and the peritoneum; but here again we are using as a means of suspension a tissue that has yielded before and we have no guarantee that it will not do so again with the recurrence of the predisposing conditions.

It was while figuring over these conditions of which I have here given the barest outline, that it occurred to me we had at our disposal a tissue from which unyielding live fibrous ligaments could be made, which would be strong enough to support the organ, could be made of sufficient length to allow of requisite movements, and still retain the fatty capsule as a bumper or cushion. By means of the elongated peritoneal covering the kidney is drawn up to the lumbar wound but not eviscerated. Three transverse cuts are made in the fibrous capsule, one inch apart, extending from the hilum to the external border, care being taken to in no place injure the cortex. The ends of these strips of fibrous capsule are cut in such a way as to raise them up alternately so that there will be two from the dorsal border and one from the pelvis. The free ends of these strips are grasped by the forceps and passed through the fatty capsule at points that will correspond to their attached ends. The fatty capsule is now stitched over the dorsum of the kidney, covering the raw surfaces of the cortex. The protruding strips of the

fibrous capsule are now passed through the lumbar fascia and through the muscles of the back at points corresponding to the desired position of the kidney and fastened in the superficial fascia with catgut sutures. Before the fibrous strips are drawn as far into the parietes as desired, the peritoneum around the kidney is caught in convenient places and tacked to the lumbar fascia in such a way as to draw it taut over the anterior surface of the organ, thus restoring another of its natural supports. This idea is borrowed from Dr. W. B. Dorsett's operation for movable kidney. The lumbar wound is now closed with or without drainage.

The objects aimed at here were to give to the kidney as many as possible of its normal attachments with the addition of two or three well attached suspensory ligaments of live tissue. I say two or three, because if we attempted to place the kidney high up behind the floating ribs it would be found almost impossible to deal with the upper strip of fibrous capsule in the way described, nor could the peritoneal covering be attached to the diaphragm.

In the communications already referred to Morris suggests taking up a broad flap of the fibrous capsule corresponding to nearly the whole of the posterior surface of the kidney attached at its outer border and fixing it in the lumbar muscle; while Sturmdoff believes that he has devised an improvement by cutting the fibrous capsule down the middle of the dorsal surface and turning shorter flaps of the same breadth which are attached at the dorsal and pelvic borders, respectively. Neither of them mentions any measures directed towards the peritoneum or fatty capsule and it is probable that both leave a bare cortical surface to become attached to the lumbar fascia which may be an advantage.

As I said, in the operation described, I attempted to imitate nature. It was worked out on theories that seemed good to me and practically it has not proved unsatisfactory so far. Whether it is a real improvement or otherwise, or whether the whole diversity of technique is just a matter of splitting hairs, I am not prepared to say. I simply offer the suggestion for what it may be worth.

CLINICAL REPORT.

REMARKS ON SOME SELECTED CASES OF ECTOPIC PREGNANCY.

BY WALTER B. DORSETT, M. D., of St. Louis.

I have, as near as I can estimate, operated upon about forty cases of extra-uterine pregnancy. The indications for the operation have been varied. The results, considering the condition of the patients, have been good. Several cases had not been diagnosticated as ectopic gestation, and while this was true, they were cases that presented symptoms demanding surgical intervention.

The first case that I personally attended was in a woman about thirty-five years old who fell dead after running violently up-stairs at the St. Louis Female Hospital. The diagnosis in this case was heart failure, inasmuch as an examination on her admission to the hospital revealed serious cardiac lesions. The post-mortem examination of the abdominal cavity revealed blood in large quantities in the cavity, a ruptured fallopian tube, and a fetus of about six weeks' gestation.

The second case was one in which, on account of a tumefaction and symptoms usually attending a suppurative appendix veriformis, a diagnosis of appendicitis was made by two good surgeons. An operation for the relief of the trouble revealed an extra uterine pregnancy of about five weeks' gestation. A continuous and persistent hemorrhage from the uterus prompted me in another case to curette the uterus for a supposed retained placenta following a supposed early abortion. Failure to check the bloody discharge, and the appearance of tumefaction in the right tube accompanied by a sudden and violent pain on the side, suggested extra-uterine pregnancy, and an operation revealed a distended broad ligament and ruptured tube with fetus enveloped.

I have operated on four other cases in which diagnosis of hemorrhage following supposed abortions, and in whom curettement had been done by attending physicians.

So far as literature is concerned, but little is found to guide even the most careful student in an unerring manner toward a diagnosis, so that positive symptoms of ectopic pregnancy are frequently wanting. This is particularly true in tubal pregnancies prior to the rupture of the enveloping structure of the gestation sac.

Incorrect diagnosis as to the cause of hematoceles and pelvic abscesses have in many instances been made. The cause of error in these cases is often due to the want of clear histories, which we look for as guides to enable us to formulate a conclusion in a given case. Positive findings—

as, for instance, the presence of a fetus or chorionic villi in or adjacent to a blood clot—will settle the question on operation; but we must remember that negative findings, as the absence of both fetus and chorionic villi, do not militate against a diagnosis of extra-uterine gestation,



This specimen taken from patient who had all of the symptoms of extra-uterine pregnancy, having had four attacks of very severe pain followed by syncope. It illustrates a case of tubal abortion. The feet and legs are shown emerging from finbriated end of tube. The right hand and forearm are shown at the left side of the cut. An incision was here made to better show fetus *in situ*. The chorionic villi are seen protruding from the ampulla of the tube. The ovary is seen on the right side of cut.

for the reason that the peritoneal fluid often acts as a digestive agent and effectually destroys all such evidence.

The clinical history of the patient may or may not justify the surgeon in arriving at a diagnosis of extra-uterine pregnancy, and he is often led to an operation solely by the indication for a celiotomy. In other words, does or does not a particular case present symptoms demanding a section? There may or may not be a history of shock, internal hem-

orrhage or concealed hemorrhage, the presence or absence of a discharge of decidual membrane from the uterus; the presence or absence of a tumor in the pelvis external to corpus uteri, a clear history of a previous pathological condition of the tubal mucosa (and, as a consequence, a history of sterility of from five or to ten or fifteen years' standing, or no history of such a condition), and still the patient may have an extra-uterine pregnancy. The question, then, as to the propriety of an operation in most cases should be the urgent symptoms that are presented. This is true in most cases that come under the observation of the surgeon, but by no means does it include a few other cases of ectopic gestation in which urgent symptoms are not present, and in which the even clear histories of hemorrhage per via naturalis, the previous pathological condition of the tubes, the presence or absence of a tumor or tumefaction. All of these taken individually and collectively, should be the guides. We should always bear in mind that every case should be "a law unto itself."

To illustrate the latter these cases can be used:

Case 1.—Mrs. H. S., aged twenty-three, married six months, entered the hospital December 19, 1900. Physical condition good; no history of previous inflammatory disease of tubes or ovaries prior to marriage. Menstruation always regular since its beginning; menstruated in normal manner one week after marriage. About one and a half weeks later began to have pain in the right iliac region. On bimanual examination a painful tumor could be outlined midway between the uterus and the abdominal end of the tube. Temperature slightly elevated, and pulse a little faster than normal. On opening, an encysted blood tumor was found, which, when disturbed, showed a tubal connection, and later a ruptured tube and small fetus with chorionic villi. Patient recovered without a bad symptom. In this case the only symptom worthy of note was the painful tumor.

Case 2.—Miss E. S., aged twenty-three, entered hospital September 9, 1903. Gave no history of shock or sudden pain; no history of discharge of deciduous membranes from the uterus. About one week before entering the hospital complained of heaviness in the pelvis. Bimanual examination revealed a fluctuating mass in the cul-de-sac of Douglas. Patient was anesthetized and Douglas' pouch incised. Quite a large amount of pus was discharged, and towards the last a macerated fetus. In this case the only guide was the fluctuating abscess in the pelvis.

Case 3.—Miss A. A. No direct symptoms pointing toward extra-uterine pregnancy. Chief symptoms vomiting and pain in the pelvis. No history of shock at any time. Examination revealed only a soft, retroverted uterus. Palliative measures to relieve the vomiting, and rest in bed, were ordered. Only after two weeks, when a bloody discharge from the vagina annoyed the patient, was another examination made and a tumor was found. Operation showed a large hematocele and fetus of about

five weeks' gestation. This patient came very near dying, and was saved only after two intravenous injections of normal saline solution. The absence of food consequent upon the long-continued vomiting, together



This specimen was taken from Mrs. G., the patient with fibroid tumor. There were no symptoms pointing toward extra-uterine pregnancy, and the operation was indicated solely by pain, which was not characterized by distinct attacks. They were constant in character. Owing to a ventro-fixation of the uterus and removal of the left tube and ovary, the uterus in part was removed with considerable difficulty. The patient made an uninterrupted recovery, and is now well.

with the loss of blood, had so debilitated her that death from exhaustion was threatened.

Case 4.—Mrs. G., colored, was examined bi-manually and a clearly outlined fibroid tumor made out between the layers of the broad ligament on the right side. Just above the growth was detected a fluctuating mass which was taken for a fluctuating pus sac. None of the symptoms

usually accompanying intra or extrauterine pregnancy were mentioned or suspected. Operation revealed tubal gestation near the uterine horn and fetus still *in situ*.

The presence of fibroid growths situated near the tubes is mentioned by Roberts as an etiologic factor in tubo-cornual pregnancy. He claims that distortion of the tube by the fibroid tumor is the cause.

The accompanying photograph of the specimen shows the fetus *in situ*. At the time of removal this cavity was filled with laminated blood clot. Owing to a ventro-fixation and removal of the left tube and ovary some years previously, adhesions were so extensive that it was impossible, in doing a hysterectomy, to remove more than three-fourths of the body of the uterus. This patient made a good recovery and left the hospital in three weeks.

These cases are cited simply to illustrate the difficulties which surround the diagnosis of some cases of extra-uterine pregnancy, and also to indicate the necessity for surgical intervention.

From my experience I feel sure that extra-uterine pregnancy is a much more frequent occurrence than is usually supposed.

A CASE OF HEMIPLEGIA FOLLOWING APOPLEXY IN A GIRL SIXTEEN YEARS OLD.

By SIDNEY I. SCHWAB, M. D., of St. Louis, Missouri.

This case is interesting on account of the rarity of this condition at so early an age and on account of the difficulty of determining the exact nature of the process. To differentiate always between a hemiplegia due to a definite cerebral lesion and a hemiplegia due to hysteria may be a matter of the greatest difficulty and this difficulty is greatly increased when the age of the patient is much below that in which the hemiplegia following apoplexy is found. In such cases there is to rely upon such data as can be obtained from the careful examination of reflexes not ordinarily affected in hysterical conditions. Insistence is here laid upon the examination of the reflexes because the paralytic symptoms may be so masked or modified by previously existing conditions as to make their diagnostic value of comparatively little importance. One of the most reliable of the reflexes in a diagnostic problem such as is here presented is the Babinski reflex. Its diagnostic reliability is owing to the fact that in normal adults it is not found, that it is usually obtained on the affected side, if it is present, and that its presence commonly points to a disturbance of the function of the motor path due to an organic lesion somewhere in its course. The diagnostic difficulty in this case is further increased by the fact that the patient was examined for the first time two years after the apoplectic attack was supposed to have taken place, and

consequently there remained very little of the original clinical picture as described by the patient. It is further to be noted that the study of the gait, always a valuable index of the true nature of conditions of this sort, gave very little positive evidence one way or the other in this case on account of an injury of the right foot and ankle received in early infancy. The case is as follows: Edith B—, nineteen years of age, unmarried, a starcher in a steam laundry, came to the neurological clinic of the Grand Avenue Dispensary with a history of an attack apoplectiform in character two years before from which resulted paralysis of the left side of the body. Family history unimportant. She has always been considered a nervous child with frequent attacks of the milder forms of hysteria, that is emotional exhibitions, amnesia, etc. There is no history of any convulsive attacks or any attacks accompanied with unconsciousness. There has been no previous illness of any note. About six months before the present attack there appeared on the left forearm an eruption. The nature of this skin symptom cannot be learned. It evidently disappeared without any especial treatment. About six months after this she awoke one morning feeling very dizzy. She succeeded in getting out of bed to call for assistance and, without losing consciousness, she gradually became paralysed on the left side. A diagnosis was made at that time of apoplexy. The patient was kept in bed for a number of weeks. A condition of hemiplegia limited to the left side followed the attack. For a brief time following the attack the patient was apparently unable to speak though the understanding of words remained normal. From that time she has improved gradually, though she asserts that mentally she has shown no improvement. She has been to various clinics for treatment and advice.

Physical Examination.—The heart and lungs are normal. The urine shows nothing abnormal. The muscular strength of the two sides is equal and not diminished. There is no atrophy. The left arm is carried slightly flexed at the elbow. The fingers of the left hand are flexed on the palm with the thumb flexed beneath them. There are no contractures and no trophic changes. The muscles and the tendon reflexes are not exaggerated. There is some decrease in functional ability in this hand though not nearly as much as would be expected in a hand held in this abnormal position. The left leg appears to be normal. The gait is not characteristic. The right foot is contracted and pronated apparently causing the patient to walk with the weight thrown on what ought to be the weaker leg. The gait is certainly not to be considered hemiplegic in type. The cranial nerves are normal with the exception of a small area of analgesia limited to the middle and branches of the fifth on the left side. The pupils are normal. There are no sensory disturbances. The left knee jerk is markedly increased over that of the right. The same is true of the achillis reflex. There is no clonus in either ankle. There

is a marked Babinski on the left, while it cannot be obtained on the right at all.

Diagnosis.—It can be seen from this brief clinical account that a diagnosis in this case presented several difficulties. The important question to decide was whether, in this case, there was the result of some definite lesion to the brain, or whether this was a hysterical hemiplegia and the so-called apoplectic stroke simply one of the manifestations of this disease? In the absence of a valvular affection of the heart or arterial disease of a very pronounced type, and in a patient with normal kidneys, an apoplectic stroke at the age of sixteen years is almost unknown. That the condition was not hysterical is definitely proven by the fact that the Babinski reflex was present in so typical a fashion. Cases of this kind, in the absence of the above etiological factors, are commonly assumed to be due to a syphilitic process in the blood vessels of the brain. In the absence of a specific history and the lack of any confirmative evidence, this explanation must be regarded as very unsatisfactory. Notwithstanding that there is no adequate explanation of the cause of this condition, yet it is interesting to know that it is possible to differentiate very exactly between a hysterical and an organic hemiplegia in a case where the clinical history is doubtful, and where the ordinary means of diagnosis fail. If the Babinski is present, the organic nature of the disease cannot be questioned. It might be added that the patient was treated as though the nature of the process was specific. There has been no special improvement.

CORRESPONDENCE

HERMAPHRODITISM AND THE TRUE DETERMINATION OF SEX.

To the Editor of the INTERSTATE MEDICAL JOURNAL.

Dear Sir:—My attention has been called to an editorial in the February issue of your journal in which you offer some criticisms upon my operative procedure in a case of pseudo-hermaphroditism.

Recognizing the supreme importance of careful diagnosis, still I am not a little surprised that you set down that case as illustrating the necessity for the warning issued by Neugebauer in reference to the frequency with which surgeons make mistaken diagnoses of sex in similar cases. You say that it is hard to see how I arrived at the conclusion in my case that the female characteristics predominated, and imply that my decision to operate as I did rested entirely upon the patient's expressed wish that she desired to be made like a woman.

It seems to me that any one reading my article carefully could not fail to realize that her response to my question was the last step in the process of my investigation, and was simply my way of stating that I gained her consent to the proposed operation. I take it for granted that no surgeon has any right to any operation, least of all one of such delicate character as the one anticipated, without the consent of the individual. After I had made all my investigations, as a final step I asked her wishes. Her answer coincided with my judgment and accordingly I placed her in the hospital and performed the operation.

Your suggestion that the patient was allowed to guess her sex, and upon that the surgeon acted, is absurd. I did some shrewd guessing myself, founded upon careful study, not only of the physical characteristics but also of the mental traits, tastes and impulses. The appearance of the external generative organs, however well developed they may be, is far from determining the true sex. From an anatomical point of view the determining of sex rests upon the careful findings of the ovarian or testicular structure. These in their rudimentary state are difficult, and indeed in most instances impossible, to differentiate after the most careful expert examination. Such a test could not be applied without removing the organs, and to remove them, of course, is equivalent to unsexing the individual. So we must go beyond even what the microscope can reveal; make a study of the individual mental and emotional attributes from a physio-psychological point of view. As William Lee Howard says in an article on "Sex Perversion in America:"¹ "A thorough understanding of the recent investigations in the anomalies of

1. American Journal of Dermatology and Genito-Urinary Diseases, January, 1904.

sex feeling, of sex perversion, and of the fact that there is something more in sex and sexuality than physical organs is absolutely necessary if we wish to render justice to our fellow-men. . . . The human embryo has within it the morphologic representation of both sexes. It soon acquires a sex distinction, and the course of normal growth and development places the child, male or female, in the world. In another case this morphologic representation of sex does not apparently develop along the same lines as does the anatomic, and the result is that a child is born with a physical development the antithesis of its sex growth. In other words, we have an unfortunate being in whom there is a total lack of harmony or relation between physical (anatomic) and psychic or sex instinct. . . . When, from the earliest recognition of self, the sexual instincts have been those of one sex and the anatomic organs are of the opposite sex, we must from a scientific point consider the sex determined by the mental factors. Hence, a congenital invert is not an individual whose sexual instincts are perverted, but one who presents an unfortunate anatomical anomaly."

Such are the factors I took into consideration in deciding the operative question. It is a well-known fact that all these individuals cursed with an anomalous development of the generative organs are, as a rule, sexual perverts, or, as Dr. Howard says, inverts. The apparent duality of development renders them objects of curiosity, not only to themselves but to others, and the sooner they can be relieved of the duality and the anatomical features made to harmonize with the psychic the better it is for that individual and for society.

If I failed to bring out prominently these features of the case in my report it is to be regretted. It is quite possible, however, that I left much to be read between the lines. As a matter of fact, in connection with the case, I have these further observations to record: The patient appeared at my office March 14th and reported that she had menstruated at intervals of from four to five weeks every month since the 18th of October last. There can, therefore, be no further question as to the propriety of the operation I performed.

I saw this patient at my office twice during her menstrual periods, the one in September and one in January, and convinced myself of the fact by examination. I did not think at the time that the discharge of blood in September could be counted as a regular menstrual discharge, but it having recurred regularly each month since that date I am satisfied that it was.

J. RIDDLE GOFFE, M. D.

New York, March 31, 1904.

REJOINDER TO DR. GOFFE'S LETTER.

The editorial in the INTERSTATE referred to by Dr. Goffe expressed, in brief, views on Dr. Goffe's case, published in greater detail in the February number of the *American Journal of Obstetrics*. Dr. Goffe does not mention this article, so that possibly he had not, at the time of writing the above, read it. I would refer him and the reader to that article for the exact reasons on which I based my conclusions as to his case.

There are four points in Dr. Goffe's letter I would like to touch upon:

(1) Dr. Goffe says he did not have his patient determine her sex, but only asked her consent to the operation. I shall quote his exact words, and leave the reader to judge what impression they conveyed (*Amer. Jour. of Obst.*, Vol. 48, p. 759): "The patient insisted that the growth was a great annoyance, that it made her different from other girls and she wanted it taken off. When asked if she preferred to be made like a man or a woman, said decidedly, 'a woman.' Accordingly, she was sent to the Polyclinic Hospital, and the operation was done."

I am glad to know that Dr. Goffe did not really intend to let the patient decide the question of sex, but it is by no means "absurd" to have supposed him to have this opinion, since Prof. Landau, of Berlin, in a recent article (*Centralblatt, f. Gynaek.*, No. 7, 1904, page 203) on this subject, argues that the patient *ought* to decide his or her own sex in these cases.

(2) Dr. Goffe says the diagnostic operation is equivalent to *unsexing the individual*. I fail to see his reasons for this. The sexual gland can be resected and the diagnosis made from the piece thus excised. Moreover, *both* glands do not have to be removed or resected, since no case of an ovary and a testicle in the same individual has been thus far proven. Cases where the glandular tissue is not sufficiently developed to make a diagnosis from such an excised piece occur, but in a considerable majority of cases a microscopic diagnosis can be readily made. In all five cases in which a diagnostic laparotomy has thus far been performed the nature of the gland was determined without difficulty.

(3) Dr. Goffe emphasizes the importance of the psychic sexuality. He quotes Howard's words: "When, from the earliest recognition of self, the sexual instincts have been those of one sex and the anatomic organs are of the opposite sex we must, from a scientific standpoint, consider the sex determined by the mental factors." In Neugebauer's writings we have many instances recorded in which, long after puberty, there was a change in the psychic sexuality of the individual. Such a "mental factor" is subjective, and can, as Neugebauer points out, be influenced by education, example and surroundings. The possibility of change in such a mental attribute or inclination must be acknowledged, but no testicle was ever known to change into an ovary.

The idea of sex is directly connected with the power of reproduction in

an individual of the human race. That power depends on the formation of certain sexual elements (ova, sperma) and the organ producing these elements (ovary, testicle) must be the determining factor in the diagnosis of sex, and not such a purely subjective element as sexual feeling or the psychic sexuality.

(4) Dr. Goffe's statement, that his patient has been menstruating regularly for the past six months, must of course remove all doubt as to her sex. But the fact that she proved to be a woman has no direct bearing on the question under discussion. Anyone who will look over Neugebauer's collection of cases of pseudo-hermaphroditism will find numerous examples of individuals presenting almost the identical features that Dr. Goffe's case did before operation that proved to be men. The diagnosis of sex, therefore, at the time of operation was very much in doubt, and I must consequently adhere to my opinion, that in this case, as in all similar cases, it would have been safer, before performing what might have proved a mutilating operation, to await the appearance of some positive signs of sex (menstruation, ejaculation of sperma) or to have performed the very simple diagnostic laparotomy.

In conclusion, I wish to say that the editorial and article referred to were not written in a spirit of criticism, but only to elicit discussion of a problem that, while dealing with rather rare conditions, is of undoubted importance, and has thus far been denied due consideration by the profession at large.

FRED. J. TAUSSIG, M. D.

St. Louis.

EDITOR INTERSTATE MEDICAL JOURNAL:

Dear Doctor:—Many thanks for the publication of my article in the February number of your journal.

I was much interested in the editorial comment published in the same number, about an operation performed by Dr. Goffe, and approve of your position in the matter. In an article published by Th. Landau in *Centralblatt fuer Gynaekologie*, 1904, No. 7, the propriety of amputation of the penis is defended both from a practical and theoretical standpoint. Landau bases his theoretical arguments upon a paragraph of the old *Prussian Landrecht*, which states that in all cases of doubtful sex the hermaphrodite, who is of full age, has the right to decide for himself to which sex he wants to belong. This paragraph would, then, for instance, permit a physician to amputate (even in the presence of testicles) a hypospadiac penis in a male who, by error, was raised as a girl, if this individual desired to continue his life under the disguise of a female. From a theoretical point of view, such a position can hardly be sustained. I would certainly refuse an operation if I should be able to ascertain the presence of testicles, and would in case of doubt insist upon an explorative operation to ascertain the true nature of the sex before I would amputate a supposed-to-be clitoris—which, however, may

be a penis. *Primum non nocere*. I have intentionally mentioned in my paper the one case where a man murdered a surgeon because the latter had removed his testicles during an operation for varicocele.

As a matter of fact, in most cases the parents of a supposed girl have approached the physician requesting the removal of an abnormally large clitoris—that is, at a period when the child certainly does not know whether it feels sexually as a male or female. In some instances girls of sixteen to twenty years of age asked for the removal of the supposed clitoris because they were engaged to be married.

The danger of a too ready compliance with such requests may be easily inferred from the experience that hermaphrodites raised as girls develop at a later date male sexual desire. It may be that retained testicles descend; it may be for other reasons. Some day pollutions appear, and the sexual instinct becomes distinctly male in character. This person then certainly wants to be a man. What shall become of him if a surgeon has previously removed his penis under the assumption that it was a hypertrophied clitoris? I am glad to see that a scientific discussion has been opened on this most interesting question.

In *Monatschrift fuer Geburtshilfe und Gynaekologie*, 1904, page 430, the paper of Geyl is mentioned. Geyl removed, in a "girl" twenty years of age, in compliance with the wish of the girl's mother, a hypospadiac penis and a membrane covering the vaginal opening. He did so although the physical examination made it more probable that the individual was a male than a female. He adds, in critic of my position, the sentence: "Much harm was done by Neugebauer when he forced individuals, who felt as females and were attracted by males only, into the male sex."

I can assure you that all the male hermaphrodites who were raised as girls and whom I had enabled to rectify their erroneous registration as females, were always extremely grateful to me for this change. I may be permitted to mention a few cases.

A person who made her living as cook, holds now the position as male cook with a considerably better salary, and is extremely happy to be able to cohabit with a woman without coming in conflict with the law. Stanislaus F., now twenty-one years old, feels very content as a workman in a factory. Theophile M., who was prosecuted under the charge of attempt to murder, owes his male sex to my testimony as expert before the court.

In one case I readily performed the amputation of the clitoris and opened the vaginal canal because I succeeded in ascertaining the presence of ovaries.

In cases in which I establish the male character of a hermaphrodite raised as a female, I suggest (but do not by any means insist upon) a change in the birth registers. These changes were only made on the special wish of the individuals.

I feel justified in claiming that, in the light of my actual observations, the theoretical contention of Geyl is void of any justification.

To a criticism of Opitz I have answered in *Centralblatt fuer Gynaekologie*, 1899, No. 17, and I shall take an early opportunity to answer Geyl's remark more explicitly.

FRANZ VON NEUGEBAUER.

Warsaw, March 2, 1904,

EDITORIAL COMMENT.

THE MEANING OF THE EXPOSITION TO THE MEDICAL PROFESSION OF ST. LOUIS.

The economic uses of a World's Fair, such as is at present in existence in this city, are well recognized. The added and awakened interest in art and all that the application into every-day life of the finer impulses thus aroused implies is no longer a matter of dispute; certainly not with the example of the Chicago exposition before us. Every calling, trade or profession finds something in an exhibition, as comprehensive as the present one, that works toward its advancement. To the medical profession of this city this Exposition has its special lesson, and it is perhaps well now, at its beginning, to take note of it and to be prepared to be receptive to its teaching. There is a shadowy side to all that the beautiful display at Forest Park brings, that to the sensitive medical soul outweighs its brighter aspect. That shadow springs to the front when we ask ourselves the question: What have we as a medical profession to offer to the hundreds of physicians who, in the course of the next few months, will come here? It is wise, perhaps, even now, to face the question and to cast up our accounts, as it were, and to see what we have to tell.

Of individual effort and of individual result there is here a sufficiency, but of concentrated, united and professional effort there is only a pitiful story. A medical visitor inquires first, above all, about hospitals and about medical schools. Of the former we must either remain silent or speak with frankness of the miserable tale of municipal neglect and professional indifference. The story we must tell is this: A material probably unsurpassed in point of clinical richness, housed in a building that some years ago was given up as unsanitary and unsafe by a Catholic convent, which had occupied it for over twenty years. This wonderful clinic is the absolute property of its superintendent, who for four years performs the double duty of its executive chief and its active medical officer. The superintendent is usually a surgeon, or has surgical tastes, and he uses this material, as he has a perfect right to do, to perfect his surgical knowledge. There are some seven hundred beds in this hospital and its branch. Under him there are a score or so of interns, who are hurried from department to department, utterly unmindful of the necessity or the existence of careful clinical study. There is no visiting staff, but merely a body of consulting physicians, appointed by no fixed rule, and whose duties are as vague as their usefulness. The place, for it cannot be called a hospital, is used for instruction—so-called clinical teaching, which is as antiquated as the rest of it. No teacher

there has either control or selection of the patients he is supposed to talk about. The spectacle of a professor of clinical medicine lecturing on a typhoid case he has seen for the first time five minutes before he begins to talk and never after he has finished, is full of humor, if it were not so inherently a part of the tragic story of helplessness on the part of the medical profession and of selfishness and neglect of those who are responsible for this sort of thing.

The same kind of story must be told of the Insane Asylum and the Poor-house. The latter houses over seven hundred insane cases, and its chief power is a non-medical man in the enjoyment of as grim a political gift as ever the devious mind of a practical politician conceived. Yet here at least, in the case of the Asylum, we can tell of the work of the late Dr. Runge, and point with a just sense of pride to his eight years of effort and his brilliant results under conditions the equal of which are only to be found in histories of medicine relating to the closing years of the eighteenth century.

The medical schools, or at least two of them, have shown progress. These two have ceased to be proprietary establishments for the manufacture of young physicians. They have shown evidences of the right spirit in the way of medical education and in raising the standard of entrance and graduation, so that there is room for a certain amount of pride in the story of their development.

The Medical Library is just beginning to fill the place that has been empty for so long a time, and the early struggle for its very existence is a thing of the past.

Leaving aside the more tangible evidences of medical progress or the lack of it, what is there wanting in this community to account for the absence of progress in some of the things that other communities, less important, have brought about with such apparent ease and success? If we look deeply and fearlessly into the thing, we are forced to admit that there is very little of what might be called the force of the most enlightened medical opinion. There seems to be no way to set this force into activity, or to direct and apply it when it is aroused. The civic spirit, so long dormant in St. Louis, but now being aroused, may be translated into terms of medical civic spirit, and would be productive of the same remarkable results. After all, it is the natural pride which one takes in his city, in his profession and in the things which grow out of these, which is the force that needs the quickening touch to spring into activity and to sweep away forever the antiquated methods and the last-century atmosphere which chokes the best-inclined effort towards medical improvement in our hospitals in this city. This is the lesson which the Exposition has the power to teach us. That it may teach it well, is the earnest hope of all those who have the medical interest of this city at heart.

MEDICAL OPINION AND STRABISMUS.

A striking example of the fatuousness with which the human mind clings to an erroneous notion which, for one reason or another, has obtained general credence, is afforded by the widely prevalent misconception of convergent strabismus as it occurs in young children. To define precisely this misconception would be impossible, as it appears never to have been clearly formulated, even by those who entertain it; suffice it to say, that it is wholly at variance with the accepted teachings of modern ophthalmology. By way of illustration, let us suppose that a child two years old with the beginnings of a convergent squint is brought to the family physician. After solemn self-communings and excogitations he is very apt to deliver himself of one of the following valuable (?) pieces of advice: (1) "Nothing can be done until the age of puberty, then an operation will be necessary;" or, (2) "Glasses will have to be worn, but the child is too young for glasses; wait until he is eight years old;" or, (3) "Very likely the child will outgrow the cross eyes; let's wait a few years and see." And so, with the cheerful assent of the doctor, the precious days, months and years are allowed to slip away. The squinting eye finally becomes practically blind from disuse, and the fusion sense is abolished never to be regained. Such are the grievous results of the workings of this sad fallacy.

In vain do ophthalmic practitioners the country over fulminate against such vicious ideas; in vain do they reiterate the fundamental truths concerning strabismus: that (1) in most cases it depends on a refractive error, usually hyperopia; that (2) squint can be said to be cured only when binocular single vision has been established; that (3) operation should always be the court of last resort; that (4) glasses fully correcting the refractive error should be constantly worn (no matter how young the child); that (5) treatment should be begun the moment the child begins to squint. Papers embodying these truths have recently appeared in such widely read general medical journals as the *Jour. A. M. A.*, *Medical Record*, etc. We can only hope that the seed has not fallen on barren ground, and that the day will not be far distant when every physician when confronted with a cross-eyed child will appreciate the gravity of the condition and his responsibility with respect thereto. Let him hesitate before expressing an opinion fraught with so much of good or evil for his little patient. Let him utterly discard his ancient formulas. And, above all, let him earnestly counsel against any delay in beginning treatment, for thus only can he feel assured that he is discharging his proper duty as a physician.

RUNGE MEMORIAL MEETING.

A public meeting commemorating the life and the medical and municipal work of the late Dr. E. C. Runge, will take place at Memorial Hall on the evening of June 2d, in conjunction with the annual convention of the American Medico-Psychological Association. Brief addresses touching upon Dr. Runge's various activities as an alienist and as a public official will be made by Drs. Robert Luedeking, Gustav Baumgarten, Frank R. Fry, the Rev. J. W. Day, and Professors H. C. Ives and Otto Heller.

The meeting will be open, and it is earnestly hoped that physicians will, by a large attendance, signify their appreciation of the service rendered by Dr. Runge to the profession as well as to civic life in general. President E. C. Eliot, of the Civic Improvement League, has been elected chairman.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Pneumococcus Peritonitis.—GHON (*Wiener Klinische Wochenschrift*, No. 10, 1904) reviews four cases under his own observation in which peritonitis was caused by the diplococcus pneumoniae (Weichselbaum). In each case a careful autopsy was made and bacteriologic examinations carried out. In the first case peritonitis followed an acute perforation of a round ulcer of the stomach. Within three days the patient died of a fully developed diffuse fibrino-purulent peritonitis. Microscopic and cultural examination of the exudate revealed exclusively the diplococcus pneumoniae.

The second case followed perforation of a cancer of the stomach. Only two species of bacteria were found, the diplococcus pneumoniae and a "long bacillus." The former were present in vastly greater numbers, however.

The third case was one of diffuse fibrino-purulent peritonitis following gastro-jejunostomy.

The fourth case occurred in a patient with carcinoma of the stomach, without perforation. The peritonitis was of lymphogenic origin.

Cases one and four must have received the infection from the swallowed secretions of the mouth, which so often contain virulent pneumococci. These patients showed no evidence of a pneumococci affection, acute or chronic.

Cases two and three, on the other hand, had pneumoniac simultaneously with the other lesions mentioned.

Typhoid Bacilli in the Feces and Urine of Typhoid Convalescents.—HERBERT (*Muenchener Medicinische Wochenschrift*, No. 11, 1904) examined the excretions of ninety-eight convalescents from typhoid, the urine 228 times and the feces 216 times. Typhoid bacilli were found in the urine of 18 per cent. of the cases, and in the feces of 3 per cent. of the cases. They were present in very large numbers in the urine and in very small numbers in the feces. In the cases in which the findings were positive, four were severe, eleven moderate and three very light. It is of great practical importance to know that the bacilli are so often found in the urine of convalescents during the first four weeks. The length of time intervening between the last day of fever and the disappearance of the bacilli from the urine is from eight to twenty-seven days. In the second month of reconvalescence, with one exception, the excretions were free from typhoid bacilli.

Concerning the So-Called "Typhus Diagnosticum." — RADZIKOWSKI (*Wiener Klinische Wochenschrift*, No. 10, 1904) tried the value of Ficher's "typhus diagnosticum," which is a modification of the Widal reaction, not requiring a living culture of typhoid bacilli, and found the results highly satisfactory. In every case in which the Widal method gave positive results the Ficher method did likewise and vice versa. In each case four tests were made; (1) the usual microscopic, Widal reaction, with virulent typhoid bacilli, in a hanging drop in a dilution of 1-50; (2) the microscopic, Widal, with Bouillon, dilution 1-50; (3) the modification of Ficher, with "typhus diagnosticum," dilution 1-50; (4) and the same in a dilution of 1-100. The tests were made in different stages of the disease, in the second and third weeks, in relapses and in convalescence. He finds the tests possible also in the dried blood specimen.

The serum of individuals who are not afflicted with typhoid never produces agglutination in dilutions of 1-50.

The author concludes that the "typhoid diagnosticum" can replace the virulent culture used in the Widal reaction, and has great advantages over this method. It is much simpler, requires less time and necessitates no laboratory equipment.

Agglutination of Typhoid Bacilli by the Blood Serum of Icteric Patients. — STEINBERG (*Muenchener Medicinische Wochenschrift*, No. 11, 1904) in a series of investigations with reference to this phenomenon concludes that there is no constant relationship between the presence of icterus and the agglutinating action of the blood serum on typhoid bacilli. A large number of cases in which marked icterus existed, due to different causes, gave no agglutination whatever. This would seem to prove that the constituents of the bile themselves possess no agglutinating qualities. Then, too, it has been conclusively shown by Eckardt and Koenigstein that the bile itself does not possess such qualities. It would seem, therefore, that where agglutination occurs in icterus it is due to factors accompanying the condition, and not to the presence of bile in the blood.

Historic Outline of Cardiac Pathology and Clinical Aspects of Chronic Myocarditis. — CAMAC (*Bulletin of the Johns Hopkins Hospital*, February, 1904) presents an exhaustive historic outline of cardiac pathology in a very interesting manner. He divides the subject into three epochs.

(1) The epoch of ancient medicine, 1500 B. C. to 300 A. D. During the early part of this epoch Hippocrates had declared that the heart could not be diseased. Erasistratus noted the synchronism of the pulse and heart beat, and discovered the valves of the heart. During the latter part Celsus concluded from the diseased hearts of animals that man's heart may also be diseased. Galen demonstrated that the arteries contained blood, not air.

(2) Epoch of mediæval medicine, 300 to 1400 A. D. For sixteen centuries, a period extending from the epoch of the Alexandria school to the school of Salerno, the human body had never been dissected. The grossest ignorance and superstition prevailed during this time.

(3) Epoch of modern medicine, 1400 to 1900. Actiology, signs and symptoms, inspection, percussion, auscultation, prognosis and treatment are discussed in detail. The following points are emphasized: (1) The normal anatomy and physiology of the heart must be closely studied by the clinician.

(2) The knowledge of the pathological anatomy and physiology is essential to clinical study.

(3) The study of myocardial disease must be greatly extended by bedside observation. This can only be done by an honest limitation of our clinical conclusions to the evidence at hand.

(4) The diagnosis must be made in the early stages of the disease.

(5) Even with the best methods, the diagnosis of chronic myocardial disease at least is difficult, and its nature obscure.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Acute Non-Purulent Thyroiditis.—DR. F. DE QUERVAIN (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Second Supplement, 1904).—This very exhaustive article of 165 pages makes up an entire number of the journal. It is illustrated by six large tables and most thoroughly goes over everything in connection with the thyroid excepting tumors. The author reports sixty-three cases from the Kocher clinic, and describes each disease in detail. Fifty autopsies are reviewed, as well as a large number of animal experiments. The scope of the article is apparent when it is noted that there are one hundred and nine literature references and thirty-five figures by way of illustration. It is impossible to go further into details in a short review.

The Preparation of Catgut.—M. LUCAS-CHAMPIONNIERE (*Bulletins et Memoires de la Societe de Chirur. de Paris*; Tome xxx, No. 10).—The extremely simple procedure advocated by the author, a distinguished French surgeon, would hardly fulfill the requirements of modern American asepsis. He seems surprised that some object to sterilization other than by heat, and says that he has used his own simple method for twenty-five years with perfect success. He places the raw material in this mixture: Olive oil 100 parts, absolute carbolic acid 20 parts, water 2 parts. At the end of two or three months the gut is supposed to be ready for use, and answers all the mechanical as well as aseptic requirements. A few hours before operating, the gut is placed in turpentine, where it may be left a week if desired.

Blood-Pressure Observations in Surgical Cases.—(Report of the Committee on Research for the Division of Surgery, Harvard Medical School, January, 1904. At the Boston City Hospital, by Wm. E. Faulkner,

M. D. At the Boston Children's Hospital, by James S. Stone, M. D. At the Massachusetts General Hospital, by Fred. T. Murphy, M. D. Summary of Results, by Committee on Surgical Research. The *Boston Medical and Surgical Journal*, March 10, 1904).—Nothing better illustrates the scientific tendency prevailing among the surgeons of Harvard University than this investigation of blood pressure. The various clinics turned over all their resources to different men, who endeavored to get at the practical clinical value of blood pressure, and as a result it was the consensus of opinion that the Riva-Rocci apparatus is of value in only a small number of cases. Cerebral compression and shock caused the most marked alterations, and hence these two conditions furnish us with the greatest possible benefit which can be derived from the instrument in the absence of other disturbing factors. The observation of blood pressure in surgical cases does not at present seem to the authors a routine necessity.

The Danger of Wound Infection as a Result of Speaking at Surgical Operations.—By DR. MENDES DE LEON (*Archiv. fuer Klinische Chirurgie*, Bd. 72, Heft. 4).—It is a well known fact that in speaking we throw out a considerable amount of saliva in finely divided particles, and nowhere do germs grow more luxuriantly than in the mouth, and it is a matter of actual experience that the injection of saliva into the peritoneum of a mouse resulted in the death of the animal as often as the experiment was performed by Miller. It may be mentioned that this saliva was taken from one hundred and eleven healthy people. Our author found out from various surgeons how many words they were accustomed to utter at the average surgical operation, and then spoke the same number of words with sterilized petri dishes before his mouth. In no instance did he fail to cultivate numerous colonies of all sorts of pus germs. Strange to say, the results were not just the same when he simply infected the dishes with saliva alone as when he spoke against the dishes. In order to prove that his germs were virulent, he injected them into sixty-one different animals, and was able in practically every instance to demonstrate inflammatory lesions of one sort or another. A number of experiments were made to disinfect the mouth, but this was found absolutely impossible, so the author suggests that a cotton pack be worn as a sort of mask, with which he was able to prevent any infection of the petri dishes.

Tubercular Disease of the Breast.—By MR. KAKAMURA (*The Sei-I-Kwai Medical Journal*, February 29, 1904).—In Japan this disease was first recognized at the University of Tokyo. In the majority of cases the women were of middle age, and strumous subjects are essentially predisposed to it. In four out of five cases the lesion in the breast was a primary one. The diagnosis is often practically impossible clinically, but in others, by the appearance of fistulæ, together with animal experimentation and bacteriological tests, the diagnosis can be made. The prognosis is very good in a primary lesion. The treatment is always surgical.

Operation in Spinal-Cord Injuries.—By SAMUEL J. MIXTER, M. D., and HENRY MELVILLE CHASE (*Annals of Surgery*, April, 1904).—After an encouraging experience in a number of cases the authors have come to the conclusion that it is warranted to operate upon spinal injuries in which we have all the symptoms which have up to date influenced authorities to discountenance operation absolutely. They believe from what they have seen that an early operation may prevent the extension of changes in the cord due to pressure, and, even though the given case might seem hopelessly injured at first, he would operate in every instance in which the physical condition of the patient will permit of it. The reports of their cases read almost like the accomplishment of something hitherto regarded as impossible, and it would certainly seem that they are right in thinking that every hope should be held out to these patients, who are otherwise certainly lost.

Clinical and Pathological Experiences in Surgery of the Stomach.—By DR. DARIO MARAGLIANO (*Beitrage zur Klinischen Chirurgie*, Band xli, Heft 3).—This report impresses the results which have been accomplished by Prof. Krause since he went to Berlin, in 1900. The author recommends that the abdomen be left open after resection of the stomach in certain cases in order that the transverse colon may be investigated a day or two later and treated rationally in case gangrene has ensued. Radical treatment is ineffectual chiefly in case the stomach incision is found not to have been made in perfectly healthy tissue. In two cases Krause did a gastroenterostomy, and a few weeks later resected with success. Three of his twelve resections died immediately from the effects of the operation, while four are still in perfect health. His immediate mortality in gastroenterostomy for cancer was forty-eight. and, in the reviewer's mind, there seems a very suspicious connection between this statement and the fact that the author under no circumstances makes use of any mechanical contrivance, but as a routine practice does a suture operation with the addition of an enteroenterostomy. These results are quite different from those of numerous American surgeons, who make use of every mechanical aid and operate in the shortest possible time upon these already exhausted patients.

Encroachment Upon the Trachea and Esophagus of Cancerous Goiter.—By C. VIANNAY, L. Pinatelle (*Revue de Chirurgie*, xxix, 1904, iii).—This is said to be an extremely rare complication of cancer of the thyroid, and consequently the author's report of a case is of undoubted value. There was almost simultaneous perforation of the two viscera mentioned, with ulceration of the tumor and secondary tuberculosis of the lungs, which completed the sad picture. The onset of the disease was acute and the course extremely rapid. It is an interesting fact, by the way, that carcinoma of the thyroid is far more frequent in those already the subject of goiter, and it occurs, as might be expected, in the countries where goitres abound. The dysphagia in this case was very great, and difficulty in respiration was also early manifested. Such complications of a cancerous thyroid have been noted only four times in one hundred and seventy-three cases of cancer of the thyroid. In one of these instances a fistula was established between the trachea and eso-

phagus. The article is completed by a record of the cases which have appeared in literature up to date.

Penetrating and Perforation Gunshot and Stab Wounds of the Abdomen, with Report of Cases.—By JOHN YOUNG BROWN, M. D. (*New York Medical Journal* and *Philadelphia Medical Journal*, April 16, 1904).—The matter of first importance mentioned by the author is that all penetrating abdominal injuries should be subjected to an exploratory laparotomy. He is one of those who have rarely called attention to the fact that it is not always easy to demonstrate a penetration of the peritoneum, even after the surgeon has cut down to that membrane. In one case he found both a penetration and a perforation, although everything indicated that neither lesion was present. In three months he had at the city hospital eight exploratory laparotomies for gunshot wounds without a death. Another list contains five cases in which the liver was injured, and it is worthy of note that but one of them died. In all, twenty-three cases are reported, with nineteen recoveries.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

The Treatment of Septicemia by Means of Enemata of Argentum Colloidale Crede.—LOEBEL (*Zentralbl. f. d. ges. Therapie*, 1904, No. 3).—During the past two years numerous attempts have been made, in the clinic of Prof. Schlesinger at Vienna, to treat sepsis, erysipelas, puerperal processes and the like by means of ungt. Crede and by means of intravenous injections of colloid silver. Neither of these methods has, however, produced as good results as the administration per rectum of the colloid silver (collargol). In three cases of severe sepsis, one of puerperal infection and one of thrombophlebitis following typhoid, enemata of collargol were followed by improvement so prompt that the good effect must be ascribed to the action of the drug. In four cases the treatment was discontinued, partly on account of negative results, partly on account of the onset of other complications (pneumonia, septic diarrhea). The administration of collargol enemata in six cases of phthisis with a septic temperature, gave negative results.

The collargol was given twice daily, in doses of 0.15 gram—0.30 gram, in 75 c.c. distilled water, for a week. Its administration should always be preceded by a cleansing enema. The ease and safety of this method of using collargol warrant its widespread trial.

The Treatment of Gastric Ulcer.—LENHARTZ (*Therap. Monatshefte*, 1904, No. 3); WAGNER (*Muench. med. Wochenschrift*, 1904, Nos. 1 and 2).—Both writers criticise unfavorably the treatment of gastric ulcer by means of rectal alimentation according to Leube and Fleiner, and prefer

the method of Lenhartz, in which proteid food is given at once, even when there has been severe bleeding. This treatment first suggested itself to Lenhartz through the good results obtained in the gastric disturbances of chlorosis by means of a plentiful proteid diet. The hyperacidity usual in these cases disappeared sooner and the nutrition improved more quickly than when they were put on a milk diet. It seemed rational that cases of gastric ulcer, which also are usually characterized by hyperacidity and anemia, should do well under the same regimen; and, as a matter of fact, he has had strikingly good results, his patients being able to return to work much sooner than with the usual treatment. He has never seen unfavorable complications follow his method; certainly renewed hemorrhages have not been more frequent in his cases than in those treated otherwise.

He begins by giving the patient, on the day following the hematemesis, 300 grams ice-cold milk and 1—3 raw eggs well beaten up. During the first week this daily allowance is increased by 100 grams of milk and one egg every day. He never gives more than one liter of milk for fear of stretching the stomach. Beginning with the sixth day, raw scraped beef is given, from 35 grams upwards; after the second week, well-boiled rice, farina and toast are permitted; after 3—4 weeks, a mixed diet. As regards drugs, he orders 2.0 grams bismuth subnitrate three times daily during the first ten days, in suspension; later this dose is cut in half, and iron is ordered in the form of Bland's pills, pulverized if necessary.

Fucol, a Substitute for Cod-Liver Oil.—J. LOWENHEIM (*Therap. Monatshefte*, 1904, No. 3).—The disagreeable taste of cod-liver oil as well as its high price, which tempts to counterfeiting, have stimulated the search for a cheap and palatable substitute. All attempts at impregnating oils with iodine directly have failed to produce a compound equivalent to cod-liver oil. Toellner of Bremen, however, seems to have solved the problem. Certain sea-weeds, rich in iodine, are dried, pulverized and extracted with vegetable oils. There results a clear, pale yellow, oily liquid, with a very delicate taste, called by its inventor "fucol," from *fucus*, sea-weed. Chemically, it seems to resemble cod-liver oil closely, and clinically too seems to have a similar action. Bruecke, Hofmann, v. Mehring, Senator as well as the writer speak well of it. Its price is considerably less than that of good cod-liver oil.

Treatment of Lobar Pneumonia.—W. GILMAN THOMPSON (*Medical Record*, March 12, 1904); H. ALTSHUL (*Medical Record*, March 26, 1904).—Dr. Thompson is rather skeptical as to the value of drugs in pneumonia and prefers to trust to hygienic and dietetic measures. He lays particular stress upon the following points:

1. The importance of not crowding an overtaxed heart with too much stimulation, and especially of basing the selection of the proper variety of cardiac stimulant upon the existing balance between the conditions of vascular tone and the effort the heart is already making.
2. The uselessness of the so-called specifics for pneumonia, and, as a rule, of expectorants.
3. The importance of the prevention of indigestion, and particularly of tympanites.

4. The great value of hypodermoclysis in certain cases.
5. The uselessness of topical applications, excepting for the purpose of relieving pleuritic pain.
6. The necessity of prescribing proper intervals of rest in which the patient is free from incessant efforts at medication.

Dr. Altshul, on the other hand, believes he has found a drug that is a specific in lobar pneumonia. Ordinarily this disease has a mortality of from 20 to 40 per cent.; in over 250 cases treated according to the writer's method the mortality was less than one per cent., although many of the patients lived under the most unfavorable conditions, suffered from chronic endocarditis, chronic nephritis, phthisis, etc. His treatment in brief is as follows:

On the establishment of a diagnosis the patient immediately receives an initial dose of at least ten to fifteen grains of the iodide of potassium, which dose is increased by five or ten grains, according to the severity of the case, every two or three hours, day and night, and this is continued throughout the whole course of the disease, until defervescence is established. The iodide is best prescribed in a 50 per cent. solution, and is administered in milk, the combination of medication with nourishment necessitating less frequent disturbance of the patient. In this manner he has, in a large number of cases, given from 1,000 to 1,500 grains per day; in one case as high as 1,800 grains. Dr. H. T. Prentiss, of Holyoke, Mass., reported to him a case in which he gave 3,000 grains daily for about four days; and another patient, a child, to whom he gave 2,100 grains daily for two days. In neither case was there any sign of intolerance, and both recovered from the disease.

The Oats Cure in Severe Cases of Diabetes Mellitus.—C. VON NOORDEN (*Berliner Klin. Wochenschr.*, 1903, No. 36; *The Postgraduate*, April, 1904).—At the last meeting of naturalists at Carlsbad, von Noorden submitted a short report showing the good results occasionally obtained by putting diabetic patients on an oatmeal diet. A further experience with over a hundred patients has served to confirm his previous conclusions. The oatmeal is boiled in water for a considerable length of time with the addition of a little salt. While boiling, butter and some vegetable albumen, or, after cooling off, beaten white of an egg, is added. The usual daily dose at the beginning of treatment is 250 gram oats, 100 gram albumen, 300 gram butter. The broth thus prepared is given every two hours. In addition, a little brandy or wine and a little strong black coffee are allowed.

After a longer or shorter course of this regimen, diabetic patients whose glycosuria had not ceased, even when they were put on a strict carbohydrate-free diet, soon stopped excreting sugar. The return to a mixed diet must be made cautiously and gradually, as acetonuria is apt to ensue. While this treatment is not to be promiscuously applied, and while some patients seem to be injured thereby, others are strikingly benefited, their tolerance for carbohydrates being markedly and permanently increased. Von Noorden confesses his inability as yet to furnish any criterion for distinguishing between those diabetics who will be benefited and those who will be harmed by the oats cure. On the whole, however, it is the severe cases that do best under it.

Selected Prescriptions.

Chlorosis and Amenorrhœa:

R Acidi arseniosi..... gr. j
 Ferri sulph. exsiccât..... 3ss
 Pulv. piperis nigri.
 Pilulæ aloe et myrrhæ.....aa 3i
 M. et ft. pil. No. xl.
 Sig: One pill t. i. d. after meals. (Fothergill, *Medical Record*.)

Acute Bronchitis—as an expectorant:

R Syr. scillæ..... 3j
 Ext. lobeliæ fl..... 3j
 Tinc. opii..... 3ijss
 Ext. ipecac fl.....gtt. xv
 Syr. pruni. virg..... 3jss
 Syr. Picis lig.....q. s. ad. 3iv
 M. S. One teaspoonful in water four times a day. (*Jl. Am. Med. Ass.*)

Bronchitis in the Aged:

R Pot. iodidi..... 3ijss
 Syr. picis liq..... 3iv
 Syr. pulv. doveri..... 3i
 Syr. tolutani.....q. s. ad. 3iv
 (I. N. Danforth.)

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

Therapeutic Experiments with Aniline Stains in Trypanosomiases.—P. EHRLICH and K. SHIGA (*Berlin Klin. Woch.*, Nos. 13 and 14, 1904).—The immense heuristic possibilities of Ehrlich's side-chain theory have again shown their importance in this latest publication. Our knowledge that the malarial parasites can be destroyed, or inhibited in their development, by quinine, suggests the search for pharmacological agents to aid against the organisms of protozoic diseases. Ehrlich selected of the latter the mal de caderas, a trypanosoma infection of horses in South America. For certain reasons members of the benzopurpurin series were used, and finally one substance was prepared—that under the name of "trypanred" was used for the experiment. The trypanosoma is very infectious for mice, so these animals were submitted to the tests. Ordinarily a mouse dies within four to five days after this trypanosoma infection. Injections of trypanosoma blood and of minute quantities of the staining material, simultaneously made, prevented the infection; the injection of the latter one to three days after the first (that is, one day before the animals otherwise would have died), preserved life. By special experiments the minimum dose to bring about this effect was determined. The question now arose, whether this cure was definite in all animals. A number of them remained well for a long period; while others, free from infection for a month and again infected, succumbed to the disease. The latter, however, could be easily dealt with by the

injection of trypanred. Next, the action of the substance when injected in rats was studied. Here, too, a protection could be established, but the animals invariably died later from relapses. Although the results are not satisfactory, they show the way in which a more certain effect may be obtained—perhaps by the substitution of more suitable compounds.

Theoretically the principal question was, in which way did the trypanred exert its effect? The idea that it directly killed the protozoa had to be abandoned, since, *in vitro*, no destruction of the parasites could be observed even in a high concentration of the substance. Only in the animal body are the trypanosomata destroyed under its influence. The animals injected with trypanred show a red discoloration of the skin for weeks, that only gradually disappears. Mice were, therefore, infected with trypanosoma-blood one to three days after the injection of the stain. It was seen that the protection only held till the second day, and that on the fourth day it was minimal. From this it follows that, since at this time the stain is firmly fixed to the tissues, it can only aid as a protector as long as this firm fixation has not yet taken place. The phenomenon can be explained by the assumption that under the influence of trypanred, anti-parasitic substances of transitory duration are developed. The injected material causes reactions in the animal body leading to the formation of these anti-bodies, that are no longer formed after it is firmly combined with the tissue elements.

If mice are treated with trypanred on the fourth day after the infection the immunity produced is greater, as they do not acutely succumb if they are again infected on the first to the third day after the injection of the stain. Even after twenty-one days a relative immunity was found to be present. There is, therefore, no doubt about the presence of an immunity, which must be an active immunity. Until the immune bodies present are eliminated, freshly-injected parasites cannot develop, nor can they multiply until the time of the relapse—that is, the time of the disappearance of the immune bodies.

These investigations are apt to throw a clear light on the relapses seen in malaria, syphilis and other diseases. Here, too, most likely, the organism harbors latent parasites that, after the disappearance of the protective substances, will again become active. They also have established that by the action of pharmacologic agents an active immunity may be produced, so that for the production of the latter perhaps better chances can be established than by the use of specific sera. Some of the receptors of the parasitic organisms in this latter way always are eliminated, and cannot take part in the active protection of anti-bodies.

Tardy Abscesses of the Liver After Amebic Dysentery—P. K. PEL (*Berlin Klin. Woch.*, 1904, No. 14).—Pel reports three cases of liver abscesses occurring eleven, fifteen and twenty years after an attack of amebic dysentery. The practical importance of these observations is apparent, but the assertion made on this basis that the existence of abscesses can last the period of twenty years without causing symptoms or elevation of temperature, must be considered with great caution. The necrotic liquefied areas in the liver following an amebic dysentery may be called abscesses, if we mean by this simply the liquefaction in a

disintegrative process of some portion of an organism or a tissue. But to call the amebic liver necroses abscesses, identifying them with pus collections, the consequences of an acute or chronic pyogenic infection, simply shows that the pathologic changes of amebic dysentery are left altogether out of consideration. As in other protozoic infections, this dysentery does not lead to a cellular exudation—to pus formation. The pus found in the stools of dysenterics of this kind is always due to secondary infection, as was first shown by Flexner, who insisted on this remarkable peculiarity of the pathological changes. As a fact, it is well known that in the pus of amebic abscesses pus corpuscles are never found, as little as any bacteria. The pus of these abscesses is nothing but the liquefied necrotic liver substance, first containing the products of the parenchymatous degeneration, and later those of the interstitial tissue. They are not abscesses in the pathologic sense of the word, and cannot be adduced as evidence for phenomena in these real abscesses. They are phenomenon *sui generis*, and have nothing to do with pus collections caused by pyogenic bacteria or other leucocyte attracting material. The contents of amebic liver abscesses are not pus, but necrotized and liquefied liver substance. It is interesting to know that they can extend their period of existence to twenty years, but no conclusion must be drawn to the products of a pyogenic infection and the secondary collection of pus.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

The Scientific Principles of Conservative Operations in Cases of Uterine Fibromyomatosis.—G. WINTER (*Zeitschr. fuer Gbtsch. und Gynaek.*, Band li.)—The principles underlying conservative tendencies in such operations are: They preserve menstruation and the possibility of pregnancy; they prevent the disagreeable symptoms of artificial menopause.

Conservative operations do not remove the possibility of recurrence, do not offer any guarantee for a complete relief of the patient of all her symptoms, and show, whether performed *per abdomen* or *per vaginam*, less favorable immediate results than the radical operations.

On the basis of this consideration Winter advances the following fundamental rules for conservative myomotomy:

Conservative operations are always indicated for subserous myomas with a thin pedicle, if the uterus does not contain any other tumors and for submucous myomas, if they are in the process of expulsion. In such instances the size of the tumor is of little importance as long as the uterine body is freely movable and can be well pressed down into the pelvic cavity.

Open for a choice between conservative and radical operation are cases of subserous myomas with a broad base; interstitial myomas in symmetrically enlarged uteri; large submucous myomas if the cervix is closed and multiple myomas of varying size.

Winter defines his position in this question as follows: In general it may be said that we ought to be radical. We are permitted to perform a conservative operation if the patient desires the preservation of her menstruation and her faculty of bearing children.

During pregnancy conservative operations have to be given preference.

The Relations Between Myoma and Cardiac Disturbances.—G. FLECK (*Archiv fuer Gyn.*, vol. 71, 1904)—In three hundred and twenty-five cases of uterine myoma pathologic alterations of the cardiac functions were noticed one hundred and thirty-three times, *i. e.*, in 40.9 per cent. of all cases. It may be mentioned here, that this figure includes all even slight anomalies. In the author's opinion, however, this figure is still too low. He inclines to the belief that the diseased condition of both the uterus and the heart may be due to a common cause, probably to an anomaly in general metabolism. The relative frequency of a deposit and the constancy with which macroscopic anatomical changes are found in the ovaries would seem to favor such a theory.

Prophylaxis Against Postoperative Cystitis.—K. BAISCH (*Centralbl. fuer Gynaek.*, 1904, No. 12).—Postoperative cystitis is not only a very annoying but even dangerous complication during convalescence after certain gynecological operations. In several cases an ascending pyelitis has caused the death of patients after the radical cancer operation of Wertheim. Baisch claims splendid results in preventing such a cystitis by following every catheterization with a thorough irrigation of the bladder with an antiseptic solution. It is very important to continue this procedure up to the time when the patient is able to spontaneously empty the bladder completely.

The Influence of Nursing Upon the Frequency of Carcinoma of the Mammæ.—L. LEHMAN (*Inaug. Dissers. rev. Centralbl. fuer Gyn.*, 1904, No. ii.)—In this very interesting essay the author has compiled all the accessible statistics pertaining both to the frequency of carcinoma of the breast and the percentage of mothers nursing their children. These statistics, referring mainly to the conditions in Germany, include, however, a number of other European and foreign countries. A comparison of these statistics demonstrates the surprising fact that all those countries in which the nursing of the babies by their mothers is notoriously more in vogue show a smaller percentage of mammary cancer. It would seem that hypoplasia of the breast, due to a failure of proper use continued during generation, forms a predisposing factor in the development of a malignant growth.

The Passage Into the General Maternal Circulation of Alcohol Which Has Been Introduced Into the Liquor Amnii.—M. NICLOUX (*Bull. de la Soc. d'Obs. de Paris*, 1903, No. 7.)—On a previous occasion the writer has demonstrated that alcohol introduced into the stomach of a pregnant animal soon appears in the amniotic fluid. In this paper Nicloux records experiments made in the reverse way. He injected alcohol into the liquor amnii of pregnant guinea-pigs and bitches and demonstrated its rapid transition into the maternal blood. The same phenomenon was

proved for sulphate of strychnia by Bar, for iodide of potassium by Toerngren.

The Blood Examination in Abdominal and Pelvic Diseases.—E. SCOTT-CARMICHAEL (*Jour. of Obst. of Brit. Emp.*, February, 1904.)—During the last two years the value of the blood examination in abdominal inflammations has received much attention by surgeons. The writer gives a review of all the more important publications on the subject and concludes his article with interesting deductions.

The red blood corpuscles and the percentage of hemoglobin afford little help in diagnosis, although in acute toxemias the amount of both is very considerably diminished. Leucocytosis is, as a symptom, undoubtedly more reliable than temperature in the diagnosis of pus, especially in chronic cases. The tendency of looking upon a certain definite number of leucocytes as indicative of pus must be avoided. Speaking generally the degree of leucocytosis in purulent affections of the female genital organs is less than in such conditions as liver abscess or suppurative appendicitis. The more chronic the suppuration the less the degree of leucocytosis.

In gynecology a count of the leucocytes forms a most valuable aid in the differential diagnosis of tubal conditions. In any gynecological swelling of a doubtful character the leucocyte count should not be omitted. The leucocyte estimate should be made regularly at frequent and regular intervals. For the clinician the quantitative count is easily performed, and is alone sufficient in the majority of cases. The qualitative count is required in a minority of cases, but its value is much diminished by the fact that much experience is required for its enumeration, which cannot easily be gained by the ordinary clinician. In the hands of laboratory experts it is probably of more value than a quantitative count for diagnostic purposes. The same may be said of the iodophile reaction of leucocytes.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

The Relation of Serous-Pleurisy and Tuberculosis in Childhood.—NATHAN (*Arch. fuer Kinderheilk.*, Vol. 38, 1904, p. 183) has carefully analyzed the cases of serous pleurisy of the Emperor and Empress Frederick Children's Hospital in Berlin with reference to this question.

Baginsky has taken the stand that, in childhood, serous pleurisy is not in nearly as close relation to tuberculosis as is generally supposed.

After a critical analysis of existing literature of the subject, the author details the results of his study of seventy-three carefully studied cases of idiopathic pleurisy in children.

The following methods of determination were used:

1. Determination of coexistent tubercular lesions of other organs.
2. Demonstration of tubercle bacilli in the sputum.
3. Demonstration of tubercle bacilli in the fluid exudate.
4. The results of cultural examination.
5. Animal experiment.
6. Clinical observation of the patients over great lengths of time after the subsidence of the pleurisy itself.

Ad. 1. Only two of the cases showed tubercular foci elsewhere in the body. (One of these cases had an unmistakable tubercular peritonitis coexistent with the pleurisy. Nevertheless, an animal inoculated with this pleural fluid was perfectly well six months after the experiment, and had gained in weight. It is thus probable that even in this case the pleurisy itself was not tubercular. The patient, seen two and one-half years later, was perfectly well.)

Ad. 2. Sputum was obtained in only three cases. No tubercle bacilli found in any case.

Ad. 3 and 4. Microscopic and cultural examination of the fluid were both negative in all cases in which these methods were tried.

Ad. 5. Animal experiment was carried out in ten cases. In only one of these (in which the family history was positive) did the animal show tubercular lesions. The others were all negative.

Ad. 6. Thirty-seven of the cases have been followed up to obtain the later developments. The average length of time between the pleurisy and the later examination was four and three-tenth years. These patients were very carefully examined, and only three of them gave any evidence of tubercular process.

As a result of his study, the author comes to the conclusion that the view of the question taken by Baginsky is fully justified.

The Best Anesthetic for Children.—BENNETT (*Archives of Pediatrics*, April, 1904) commenting on the fact that deaths from anesthetics are relatively more frequent in children than in adults, discusses the choice of anesthetics during childhood.

The widespread belief that chloroform is the best anesthetic for children, less dangerous in them than in adults, is, according to Bennett, "a grave error, without foundation." Chloroform is, in fact, a particularly dangerous anesthetic for children. Anesthesia in children must often be induced during crying and struggling; respiration is thus necessarily irregular. Chloroform can, therefore, not be administered in the gradual, smooth manner so necessary for safety. Sudden overdosage is exceedingly common at this time, because, in order to quiet the struggling child, the anesthetic is given too freely and too fast. If children become suddenly quiet during the induction of chloroform anesthesia, the administration should be suspended to note the effect of the amount already given. Concentrated vapor must be avoided, and the amount used be kept as small as possible. In the presence of acute bronchitis, pneumonia, nephritis, chloroform is, however, to be preferred to ether.

The belief that ether is an unsuitable anesthetic for children is, according to Bennett, also quite unfounded. If it be given diluted, at first, and not too quickly, its unpleasant effects may be almost com-

pletely abrogated. Circulatory depression, commonly caused by chloroform, practically never results from ether. The administration of ether may be advantageously preceded by that of nitrous oxide. But the prolonged administration of nitrous oxide in children is not to be recommended, because they present asphyxial symptoms early, often to a marked, even dangerous, degree. Nitrous oxide mixed with air or oxygen yields better results, and is less dangerous than pure gas.

Ethyl chloride and ethyl bromide have not been used sufficiently as yet to have the question of their relative safety determined.

Diphtheritic Anthritis.—BARBIER (*Rev. Mens. des Mat. de l'Enf.*, April, 1904), at a recent meeting of the Paris Pediatric Society, reported a case of apparently mild diphtheria, treated with antitoxin, in which, on the fourteenth day, there was severe generalized arthralgia, with great infiltration of the affected joints. Puncture revealed sterile, sero-sanguinolent fluid. The child died under the symptoms of diphtheritic toxæmia, and at the post-mortem a cardiac thrombosis was found. Culture from the cut surface of the lung showed Klebs-Loeffler bacilli in pure culture.

In the ensuing discussion, Guinon said that these diphtheritic joint involvements had become much less frequent since the introduction of antitoxin. This applies to scarlet fever also, where preventive doses of antitoxin are given. Comby held that this was also true for measles.

Infantile Scurvy in France.—In view of the widespread use of sterilized milk in France in the artificial feeding of infants, this subject is of peculiar interest. It is generally conceded that prolonged sterilization of milk is an important factor in the production of this condition. Rochon (*These de Paris*, 1903) has collected the published cases of scurvy in France. It appears that the number of cases is on the increase of late. Boys are affected somewhat more often than girls. The symptoms appear between the ages of six months and two years. Breast feeding and feeding of *raw* milk were not causal factors in any of the forty-three cases collected. On the other hand, the influence of artificial foods and sterilized milk is clearly established. Of the forty-three cases cited, twenty-five had been fed on sterilized milk. Prolonged sterilization certainly diminishes the soluble phosphates and the citric acid, and destroys the ferments of the milk.

The principal symptoms are: Anæmia, pain and weakness of the extremities, lesions of the gums and sub-periosteal hæmatomata. In about a fourth of the cases the symptoms are limited to pseudo-paralysis, with pain. Scurvy may coincide with rickets (in sixteen of the forty-three cases), although it is not a form of the latter. Prophylaxis would consist, *inter alios*, in pasteurizing milk instead of sterilizing it.

ORTHOPEDICS.

IN CHARGE OF

NATHANIEL ALLISON, M. D.

Congenital Dislocation of the Hip.—*The American Journal of Orthopedic Surgery* for February which has made its appearance in the last two weeks contains five articles on congenital hip dislocation. These articles are the papers which were read before the American Orthopedic Association at its meeting in Washington, D. C., last May. The articles and the discussion which follows are of especial interest as therein is presented a compendium of the best orthopedic opinion in America on the question of congenital hip dislocation.

The first paper is by E. H. Bradford of Boston. It is entitled, "The Resistance of Tissues as a Factor in the Manual Reduction of Congenital Hip Dislocation." The writer states that he has been led to give up the opinion that the chief obstacle to reduction is found in capsular resistance, an opinion which he formerly held, and states that he is now convinced that the resistance is muscular. Assisted by Dr. L. T. Wilson he made several experiments on a cadaver in the laboratory of the Harvard Medical School; the precision of these experiments would seem to prove beyond doubt the writer's position. Of prime importance is the resistance offered by the adductor magnus. In speaking of treatment the writer states that whereas in a young child nothing could be more simple than the method of Lorenz, in older and more resistant cases it brings the operator face to face with the danger of either using too great force, and causing an unnecessary injury, or of using too little force, and not accomplishing a reduction. It is essential, therefore, that a mechanical force be employed which is directly under the control of the operator. The apparatus is then briefly described which was devised by Mr. Bartlett of Boston. This device firmly fixes the pelvis, traction is made on the limb by a windlass, the operator exerting force directly on the trochanter by means of a long lever is able to gauge the force to the required amount.

Dr. Bradford summarizes his paper as follows:

- (1) The resistance offered by the capsule is not more important than that offered by the muscles.
- (2) The chief resistance to forcible abduction is from the strong tendon of the adductor magnus.
- (3) The resistance to pulling down the head comes from the hamstring group and the long tendon of the adductor magnus and the ilio-tibial band.
- (4) These resistant tissues can be overcome by small incisions at a distance from the hip.
- (5) In lighter cases manual manipulation is sufficient.
- (6) In resistant cases mechanical force which pulls upon and abducts the limb, arranged so as to directly act upon the capsule, is of assistance.
- (7) Where the tendon of the adductor magnus is so strong that an immoderate amount of force is needed in stretching, it would seem ad-

visible to divide the chief resisting tissues rather than to incur the danger of severely bruising the tissues by the force used. The division of the tendon can be done either before the operation of forcible correction or at the same time.

The second paper is by H. Augustus Wilson and J. Torrence Rugh of Philadelphia and contains a complete autopsy report by W. M. L. Coplin.

It is entitled, "Congenital Dislocation of the Hip: Report of a Bloodless Reposition, Followed by Death, With an Analysis of Twenty-three Cases in Process of Treatment." The writers relate the demonstration of Lorenz in Philadelphia and a detailed account of a case is given where convulsions followed the manipulation, Lorenz is quoted as saying that never before in his experience had this occurred, he attributed the convulsions to shock and trauma. In describing the cases operated upon by themselves the writers state: "The details as practiced by Lorenz have been most critically carried out. It was deemed unwise to attempt the least departure from the methods which Lorenz with his vast experience and consummate skill had demonstrated before a most critical audience of 700 medical men." The case which resulted fatally is the central point of interest in this paper. The patient, a girl of seven, delicate looking and rather under weight, had double dislocation. She was operated upon in the routine manner of Lorenz but the operators noted several distinct sounds of cracking or tearing during the manipulation, the reposition did not seem entirely satisfactory but the child was put in plaster in the "frog position" and left the table in fairly good condition. She did not rally well, however, and eight hours after operation showed marked signs of shock, she did not respond to stimulation but died about twenty hours after operation. The pathological report mentions an intracapsular fracture of the neck of the femur and two fractures of the ischium on the right side. Attention is called to the fact that the manipulations in this case were not of a particularly violent character, but were less so than those employed by Lorenz.

The third paper is by Gwilym G. Davis of Philadelphia, and is entitled, "The Forcible Reposition of Congenital Luxation of the Hip."

The writer has for his purpose the strong advocacy of conservative measures in the treatment of the condition. He criticises the method of Lorenz with considerable spleen, he refers to Paci as originating the forcible method and says that what he attempted to do by comparatively mild and more or less gradual methods Lorenz seeks to accomplish by violence. "When we consider that the deformity is not a fatal one, and that in some cases it is not even a seriously disabling one, means of treatment which subject the patients to serious risks of injury or loss of life are not to be recommended." He holds that what violent traction will accomplish, confinement in bed with weight traction will also do and this also without risk. The loss of time is insignificant compared to the dangers of violence.

The fourth paper is by George B. Packard of Denver, and is entitled "Cases of Congenital Dislocation of the Hip."

The writer simply reports the cases operated upon by Lorenz in Denver, six in all. Two replacements, two anterior displacements, and two that have passed out of the writer's knowledge.

The fifth paper is by Henry Ling Taylor of New York, and is entitled,

“Peripheral Palsies Following Manual Replacement of the Congenitally Dislocated Hip.”

The slowness with which some of the patients operated upon in New York learned to walk attracted the writer's attention, on examination he found that in a series of less than fifty cases there were nine cases of quadriceps palsy, one of peroneus, and one of sciatic palsy, of the quadriceps cases three were double, making twelve limbs affected. There were two cases of foot drop where the quadriceps was not involved. This is more frequent than reported by Lorenz in his monograph of 1900 where there were eight cases out of four hundred replacements. The writer is of the opinion that quadriceps paralysis might be easily overlooked. He concludes that where this complication is so frequent and where more serious accidents are liable, manipulations should be deliberate and careful and where serious obstacles exist the attempt to reduce the dislocation by manual force alone should be abandoned.

Discussion.—Dr. Roswell Park opened the discussion saying that he was impressed with the folly of calling the Lorenz method “bloodless.” He does not consider it safe to tear tissues and break bones indiscriminately.

Dr. V. P. Gibney said that he could not concur in the opinion that it was always a simple operation in a child of four years. He regards the operation as always attended by danger.

Dr. N. M. Shaffer said that he wished to express his appreciation of Lorenz's efforts in this country. He felt that orthopedic surgery had been immensely benefitted thereby.

Dr. John Ridlon said that he believed the Lorenz procedure to be the best. He had notes on twenty-one cases operated upon by Lorenz in Chicago, in four of these he failed to replace the hip, in one case the neck and in another the shaft of the femur was broken. He promised a full report at a later date.

Dr. B. E. McKenzie said that he regarded it as unfortunate that Lorenz had been represented to the laity and a large part of the medical profession as a man of Herculean strength, who used this strength to operate. He found him a modest man claiming only 25 per cent. successful results for his method. He did not see him use great force when operating.

Dr. Arthur J. Gillette called attention to the fact that many of these cases did well after a time if untreated.

Dr. A. J. Steele mentioned a case that Lorenz had refused to operate upon as the child was seven years old and of unusual muscular development. After long application of traction and division of the adductors it was possible to reduce both hips.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

The Partial Passing of Neurasthenia.—DANA (*Boston Med. Surg. Journal*, No. 13, 1904).—This is a timely paper upon a subject of which much is written but very little said. Of late years there has been a tendency among neurologists to consider with great frankness the limits of the knowledge which is at their disposal on this subject and to submit their own cases to the test of this definite amount of positive data. As a result, the diagnosis of neurasthenia is being made today with a great deal of care and much less frequency than a few years ago, when this disease was used as a dumping ground for all the vague diagnoses to which the much abused term functional was given. As an illustration of this tendency, this paper of Dana's deserves careful reading. The main contention of this paper is that, inasmuch as neurasthenia is so closely related to various abnormal mental states, a certain number of cases which are diagnosed as neurasthenia on account of the presence of certain vague symptoms are really not neurasthenia at all, but are the prodromata, or the less typically pronounced stages of very definite psychoses. Among such are mentioned dementia præcox, paranoia, mania-melancholia, phrenesthenia, or the degenerative psychoses, and the exhaustion psychoses. The author sums up as follows: "It is my contention, first, that many cases of dementia præcox are in the early stages considered neurasthenics, but also that there are abortive types of dementia præcox which pass through life, or many years of it, with the dementia arrested, and are classed simply as neurasthenic. Finally, neurasthenis occurring under twenty is rarely neurasthenia. It is dementia præcox, or a recurrent melancholia, or the exhaustion of a phrenasthenia, and it is rarely paranoia. Neurasthenia, occurring at this early period with a bad family history, including family alcoholism, should make one very suspicious of a serious malady."

Post-Diphtheritic Chronic Bulbar Paralysis and Its Distinction from Myasthenia.—HARRIS (*Brain* Winter, 1903).—Chronic bulbar paralysis, occurring as a sequel of diphtheria, is a rare event, and only four instances are found in the literature. In both cases here described there developed, after an attack of sore throat, paralysis of the palate, followed soon afterward by weakness of the tongue and lip, and inability to close the eyes. In each case there was profound, lasting paralysis of the sphincters of the eyes and lips, with complete escape of the remaining facial muscles with the exception of the frontalis, which appeared to be slightly weak in both. In one case the symptoms lasted six years, followed by complete recovery. In the other, a more severe case, with more marked atrophy of tongue and facial muscles, the symptoms remain without improvement after the lapse of four years. It seems clear, then, that very occasionally permanent palsy may follow results follow-

ing diphtheritic paralysis. That when such permanent palsy remains, it is usually of muscles supplied by one or more of the bulbar nuclei. That a distinct type of bulbar paralysis may ensue closely resembling in its distribution that which is familiar in myasthenia or asthenic bulbar palsy, but which is to be distinguished from the latter by the non-variability of the symptoms, the absence of the myasthenic reaction, the absence of ptosis or weakness of the jaw muscles, or of the neck or limbs. It is further distinguished by the absence of the attacks of dyspnea so characteristic of many cases of myasthenia, and by the presence of muscular atrophy and the reaction of degeneration.

Ophthalmic Migraine.—KOLLARTIS (*Deutsche Zeitschrift fuer Nervenheilkunde*, Bd., 26, 1904).—The exact meaning of this clinical term has been a subject of much dispute. In a certain number of cases the attacks of pain are accompanied by paralysis of the ocular muscles which has been called by Mobius periodical ocular motor paralysis. The subject is touched upon in this paper by a clinical report, the main features of which are as follows: A seventeen-year-old girl with no neuropathic heredity has never been able to see well out of the right eye. At the age of seven she had attacks of hemicrania, following which there was paralysis of the ocular motor and hyperesthesia in the right trigeminus, later paresis and then amaurosis in the right eye. The author believes that the paralysis in migraine is to be interpreted as a complication and as a result of the attacks of migraine. It is explained in this way. The nervous system is poorly developed from this point of view and reacts to the repeated attacks of pain by a loss in functional power which afterwards develops into the paresis or paralysis of the muscles supplied by the ocular motor.

The Condition of the Reflexes in Cases of Brain Tumors.—REH (*Monatschrift fuer Psychiatrie und Neurologie*, No. 3, 1904).—A study of 100 cases of brain tumor found in the literature of the passed ten years. Only such cases were studied in which there were post-mortem reports. Especial attention was given to the question of degeneration of the posterior columns as the absence of the patellar reflex has been explained in this way. The conclusions are as follows: 1. Degeneration of the posterior columns was found in 65 per cent. of the cases. 2. The degeneration was of different degrees of severity, more marked in the cervical than in the lumbar region. 3. The posterior roots are much less degenerated than the posterior columns. 4. The choked disc is relatively often found, 82 per cent. 5. The patellar reflex is in the majority of the cases decreased pathologically. In the twenty-two cases 45 per cent., in a small number of cases the reverse is found. In some cases in spite of the degeneration of the posterior columns the knee-jerk is normal. The explanation of this irregularity depends upon the degree and location of the process. The unequal extent of the posterior degeneration and the degeneration of the other tracts as well as the anterior horns cannot be explained by the mechanical force that acts upon the posterior columns.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. MCC. JOHNSON, M. D.

Torsion of the Spermatic Cord.—VANVERTS (*Ann. des Mal. des Org. Urin.*, March 15, 1904).—After a complete consideration in detail of the history, pathological anatomy, etiology and pathogenesis, the author says that torsion of the cord produces a congestion of the testicle and epididymis, which is very rapidly succeeded by intra-testicular and intra-epididymal hemorrhage, and which is fatal to these organs.

In about one-fourth of the cases cure occurs from spontaneous readjustment, but repeated attacks of like or increased intensity are the rule. In half of the cases the testicle is in an ectopic state, so that the diagnosis must be considered from two standpoints: (1) when the tumefaction is in the inguinal canal; (2) when it involves the scrotum only. In both we have to differentiate strangulated hernia and orchitis, but the diagnosis is much more easy in the latter locality. While there is no danger to life, the testicle is quickly lost, unless relieved from the torsion.

From an observation of forty-four reported cases it seems clear that when the testicle is ectopic, as here to untwist the cord by external manoeuvres is impossible, it is necessary to operate in the early hours to untwist the cord and lower the testicle into the scrotum, or if this descent is impossible, to do an orchidectomy. If the affection is more than twenty-four hours old, orchidectomy constitutes the sole mode of treatment. If the testicle is in the scrotum, and the condition is recent (less than twenty-four hours old), restoration by external manipulation, or operation if needed, must be done. When the torsion is of longer duration, abstain from any interference, unless the inflammatory condition calls for intervention, when orchidectomy must be done. In case of recurrent torsions we must practice, between the crises, fixation of the testicle in the scrotum.

Surgical Treatment of Nephritis.—FERGUSON (*Jour. A. M. A.*, April 16, 1904).—The author compares the condition of the kidney in acute inflammation to the phlegmonous inflammation of the hand, where free incisions promptly relieve the tension and liberates the imprisoned poisonous materials, being of opinion that in acute inflammations of the kidney the consultant should be the surgeon. To the 120 cases of decapsulation reported by Guiteras, Ferguson adds three of his own, in one of which excellent curative results followed, while the others (two) died, being operated upon only as a last resort.

He has been in the habit of not advising operation for floating kidney simply because it was dislocated, and of operating upon those only which were giving disturbance. However, of thirteen cases which he had advised against operation, all but three have later undergone operation because of painful and annoying symptoms. On the other hand, a freely movable kidney may be diseased without causing pain and tenderness, or even constant urinary changes. This experience and knowledge has

convinced the author that all cases of floating kidneys should be treated by decapsulation and fixation.

That the symptoms and signs so characteristic of nephritis in cases of floating kidney are indicative of a true nephritis, and not of a mere temporary condition, is abundantly proven by examination of pieces removed from the kidney at the time of operation. It is a matter of common clinical experience to find that nephritis does not always find expression in the urine, and the data from it are often unreliable in forming an idea of the severity of the disease. A floating kidney is a frequent cause of chronic nephritis, by constantly interfering with its vascular supply, nutrition and free excretion of urine.

From reported cases the death rate, even allowing all deaths within a week to be due to operation, is 9 per cent. It is fair to conclude that when the limitations of the operation are more clearly defined, and the operation performed earlier, that this mortality will be much reduced.

When and How Shall We Operate for Obstructing Hypertrophy of the Prostate Gland.—THORNDIKE (*Med. News*, April 23, 1904).—The author emphasizes these points:

1. That the catheter has as wide a range of usefulness as it ever had, in the palliation of obstructing prostatic hypertrophy.

2. That the various operative procedures at present at our command are to be resorted to, with the exception of certain small classes of cases referred to in these remarks, after the catheter has ceased to palliate.

3. That the time for this operative interference is at the moment when the catheter has ceased to palliate and not after months or years of further and unavailing struggle to make it do so.

4. That the more radical operation of enucleation, on the one hand, and the Bottini operation with its various modifications on the other, are not procedures of the same kind, do not have the same object in view, and are in no sense to be weighed in the balance, the one class against the other. They should rather be contrasted, the one class as radical operations aiming at a cure, and the other as efficient palliating procedures, each having its own distinct indications for its appropriate use.

Reflections on the Surgery of Prostatic Hypertrophy.—TELLURIDE (*Med. News*, April 23, 1904).—This article takes up in detail the author's technique in attacking the prostate surgically. Seventeen cases of prostatectomy are reported: four suprapubic operations (three deaths, one good result); two combined suprapubic and perineal operations (one death, one good result); eleven perineal operations (good results in all).

These deductions are given:

1. Infection is the all-important consideration in prostatitis; (2) perineal drainage of the bladder relieves the patient; (3) many of these patients will not stand extensive operative procedures or long-continued anesthesia; (4) partial removal of the prostate will be tolerated by many infected patients, and a good result obtained; (5) perineal drainage of the bladder only should be done in desperate cases and in debilitated patients in whom morcellation is necessary. In these cases the prostate should be removed at the second operation.

LARYNGOLOGY AND OTOTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

On the Prophylaxis of Acute Otitis Media.—VEIS (*Monatsschrift fuer Ohrenheilkunde*, xxxviii, No. 2).—The author believes that improper cleansing of the nose plays a greater role in the production of acute otitis media than is commonly believed. He states that the majority of persons expel the accumulations in the nose by closing one nostril completely and leaving only a very small opening in the other, through which the air and secretions are expelled with great force, some of the air being as a rule driven into the ears. This usually results in no harm, but, when there is an acute rhinitis or when the secretions are loaded with pathogenic organisms as is the case in measles, scarlet fever, diphtheria, whooping-cough, etc., a severe otitis media results. The same is true when the patient is forced to sneeze with both nostrils blocked. It is therefore advisable to keep the nose as free as possible during an attack of acute rhinitis. An otitis media frequently follows a bath for the reason that when the water enters the nose it is expelled as quickly as possible and is often forced into the ear. The writer believes the normal method of cleansing the nose is to expel the secretions by "blowing the nose" directly into a handkerchief with both nostrils open, thereby avoiding the danger of forcing any infectious material into the middle ear.

Alarming Hemorrhage Following Tonsillotomy.—SMITH (*Laryngoscope*, February, 1904).—After giving a brief report of fifty-one cases of alarming hemorrhage following tonsillotomies, six of which were fatal, the author enumerates some special causes as follows:

1. Hemorrhagic diathesis, or hemophilia.
2. Fibroid tonsils, where the glandular substance is intermeshed with fibrous tissue, which prevents the arterioles from contracting when cut.
3. Age; occurring more in adults than in children. Due entirely to the increased fibrosis and greater vascular supply.
4. Sex; more frequently in males than in females.
5. Acute inflammation, when the tonsils are engorged with blood. Consensus of opinion discouraging removal when this condition exists.
6. Anemia; when there is a marked deficiency of the fibrin in the blood.
7. Malignancy; when there is increased vascular supply.
8. Abnormalities in the distribution of the vessels of the tonsil.
 - (a) Abnormal distribution of the ascending pharyngeal artery.
 - (b) Abnormally large tonsilar artery.
 - (c) Abnormal course of the internal carotid.
 - (d) Large vessel in the anterior pillar of the fauces.
 - (e) Wound of large plexus of vein at the lower border of the tonsil.
 - (f) Arterio-sclerosis.

As to the best method of controlling severe hemorrhage, the writer believes the tonsillar hemostat of Mickulicz-Stoerk to be the most effective. A report of three cases is given in which the author successfully controlled alarming hemorrhages. In one case the hemostat was left applied for forty-seven hours.

Some General Results of the Nose and Nasopharynx.—SMYE (*British Medical Journal*, March 19, 1904) believes that those affections of the nose and nasopharynx which give rise to a purulent or mucopurulent discharge should be looked upon as possible causes of ill health. The patient may be entirely unconscious of any nasal affection and yet the source of ill health may be traced directly to it, as is the case when there is a marked purulent discharge from the accessory cavities of the nose. He has also observed that there is a marked improvement (physically) in those children in which the adenoids have been removed, even when they still continue to be mouth-breathers. This, he thinks, can be explained in that adenoid secretions have a deleterious influence on the digestion, which ceases when the adenoids are removed.

Sarcoma of the Nasal Passages—An Inductive Study Based on the Records of 150 Cases.—WATSON (*American Medicine*, April 2, 1904).—From his study of the clinical records of 150 cases of sarcoma of the nasal passages and four of his own, the author finds that sarcoma has a less malignant tendency than when occurring elsewhere. He also notes that intranasal operations give better results than extremely radical ones. Out of 48 cases in which extranasal operations were performed 39.58 per cent. were cured, while out of 64 cases, in which intranasal operations were performed, a cure was effected in 54.68 per cent. The writer states that a cure can be effected by means of intranasal surgery even when there is considerable external deformity. He reports such a case. According to Watson there is little justification in the belief that operative interference will excite the growth to greater malignancy.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Multiplicity of Syphilitic Chancres.—M. QUEYRAT (*Annales de Derm. et de Syph.*, May, 1904).—In 500 cases of recent syphilitic chancre, Queyrat found 131 cases of multiple chancres, which is a proportion of 26 out of 100, *i. e.*, about one-fourth. Of the 131 cases of multiple chancre he found two chancres 79 times; three, 27 times; four, 6 times; five, 12 times; six, twice; seven, 3 times; twelve, once and thirteen once.

On the New Form of Papular Exudative Dermatitis Provoked by Pilocarpine.—B. HALLOPEAU et Vielliard (*Annales de Derm. et de Syph.*, May, 1904).—The conclusions in the resume given by the authors of this

article are, first, the prolonged use of pilocarpine introduced into the organism hypodermically or by ocular instillations sometimes produces an eruption of umbilicate papules which are localized in the sudoriparous glands. Second, this eruption elects the face or extremities. Third, the exudate may be serous, clear or purulent. Fourth, this eruption differs in its clinical characteristics from all dermatoses heretofore described. Fifth, it is accompanied by grave disturbances of the general health particularly in the invasion of the heart. Sixth, apyretic. Seventh, there is no known antidote for pilocarpine except to efface it by elimination.

Two Cases of Leucokeratosis Buccalis; Comparison With the Histological Changes in a Case of Tylosis Palmæ et Plantæ.—SYLVAN ROSENHEIM, M. D. (Johns Hopkins Bulletin, February, 1904).—The author found upon microscopic examination of a piece of the cheek affected by leucokeratosis buccalis, that there is an extreme thickness of both mucous membrane and submucosa and that there is present a new layer, a very thick horny layer, just as in the skin but much thicker. The mucous membrane of the patch, then, consists of the outer, horny layer and the inner layer, the malpighian layer. The outer layer does not show nuclei. The malpighian layer is much thickened and shows well-defined nuclei and nucleoli. As the horny layers approach the latter become less distinct. The submucosa is very strongly infiltrated with round cells about the vessels and just under the epidermis.

In tylosis palmæ and plantæ the microscopic appearances were as follows: First, the stratum mucosum somewhat thickened, the stratum granulosum has large distinctly stained granules, the papillæ are rather numerous and extend deep into the mucous layer. About the vessels are a few round cells.

The essential changes in both of these diseases are very much alike, namely, the process of keratinization resulting in one case in the formation of a new layer and in the other a great increase in the thickness of the horny layer and infiltration in the chorium of young round cells.

In leucokeratosis the etiological factors probably lie first in the peculiar susceptibility of the epithelial cells of the part to irritation, as, in the use of tobacco, due to smoke. In one of the cases the spot developed exactly where the patient was in the habit of holding his quid of tobacco. Syphilis, gout and rheumatism are given as etiological factors.

Staphylococcus Aureus Infection.—ARTHUR G. ROOT, M. D. (*Medical News*, February 6, 1904).—Dr. Root reported before the eighty-eighth meeting of the Medical Society of the State of New York some cases on this subject. He remarks that this organism often occurs in the skin and may usually be found in the mouth, nose and ear. In one of the cases reported the patient suffered from a boil which was followed by swelling with pain and, finally, an abscess of the knee. In another case the patient had a run-around of the nail which lasted for a considerable period and finally led to some lymphangitis, from which grave septic symptoms developed. He remarks that the staphylococcus albus

is grown from these cases and that in the laboratory after about ten days they take on a certain amount of golden yellow color.

Treatment of Lupus.—GUNGMAHN (*Annales de Derm. et de Syph.*, May, 1904).—Gungmann presented two cases of lupus before the Gesellschaft der Aerzte in Wein cured by the extirpation of the diseased area. Among the numerous methods employed for the cure of this condition, he remarks that two only are of radical value, first, total extirpation, followed by a plastic operation and treatment by Finsen. These two modes of treatment are equally important and are complementary. In those cases where it is possible, extirpation of the diseased area has a great advantage over the Finsen treatment on account of the shortness of the duration of the treatment. But in those cases where the disease is widely disseminated, the rays are preferable and more practicable. He reports 80 to 90 per cent. of cures by the extirpation method.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Hot Water Applied Directly to the Cornea in the Treatment of Corneal Infiltrations.—MANOLESCO (*Ann. d'Oculist*, March, 1904).—The effect of heat on the migration of leukocytes led the author to experiment with the action of hot water in deep infiltrations of the cornea, especially in parenchymatous keratitis. After cocainization hot water (80° to 90° C.) is allowed to fall drop by drop on the cornea. The application is continued for from five to ten minutes and is repeated twice a day. The temperature of the lower conjunctival cul-de-sac is increased about 1°, circumcorneal injection is increased and corneal vascularity becomes more apparent. This condition lasts from two to five hours.

Conclusions drawn from twelve cases treated in this manner are as follows: (1) In parenchymatous keratitis the treatment is superior to other local treatments; (2) it hastens the resorption of corneal infiltrations and serves also as an irritant; (3) it is easy to apply and is not followed by any ill effect even if the water is a little too hot.

Notes on the Cure of Chronic Catarrhal Inflammations of the Lachrymal Canal with Preservation of the Normal Anatomical Relations.—W. GORDON M. BYERS (*Ophthalm. Review*, February, 1904).—In chronic catarrh of the lachrymal duct the earliest anatomical changes are situated at the inferior meatus. Swelling of the mucous membrane at this site (as from irritation by cold wind, etc.), will effectually occlude the passage. In such cases adrenalin applied to the inferior turbinate, in the vicinity of the inferior meatus, will temporarily stop the epiphora. Occasionally permanent cure can be effected by the topical application of astringents:

(silver nitrate, 2 to 4 per cent.; argyrol, 10 to 20 per cent). Rarely stronger measures, such as the application of chromic acid, the cautery or even the removal of a piece of mucous membrane may be required.

When the swelling is situated too high to be reached by topical applications Byers proceeds as follows: A special syringe nozzle with a swelling five mm. from the end is introduced into the lower canaliculus and pushed home. A clamp (of the author's devising) is affixed to the upper canaliculus. Both puncta are so effectually plugged that regurgitation is impossible.

To test the patency of the canal, adrenalin, 1-2000 is injected. If the fluid passes readily, the eye will be found quite dry shortly afterward. Occasionally adrenalin alone will effect a permanent cure. If not, injections of organic silver salts may be required.

If an obstruction is found adrenalin is injected at intervals without removing the syringe. The mucous membrane is thus contracted little by little from above downward and fluid can finally be forced through. With the extra power gained from the clamp and snub-nosed nozzle, patency can often be established without the use of probes. Accidents may be avoided by *not* slitting the canaliculus, and carefully regulating the force applied. Cases with dilatation of the sack are not suitable for the treatment. Patency is apt to remain or it can be readily re-established.

In cases of unilateral epiphora, the blockage is often occasioned by polyps, septal spurs, etc. The author believes that in at least five per cent. of all cases obvious nasal conditions are the direct cause of the trouble.

Operation for Secondary Cataract.—MANOLESCO (*Ann. d' Oculist*, March, 1904).—Secondary cataract occurs in various gradations from simple opacification of the posterior capsule to a thick membrane composed of the posterior and anterior capsules, the remains of the cataract, and iritic exudates united by inflammatory products. Operation should be deferred until at least four months after the disappearance of any irritation incident to the process which has given rise to the secondary cataract. That method which creates an opening sufficient for the passage of light and at the same time does the least violence, is to be preferred.

Depending on the anatomic-pathologic character of the cataract, three operative methods are advocated. The first is applicable especially to cases where the thick posterior capsule alone forms the cataract and the iris still possesses some elasticity. The method is described as follows: A narrow Graefe knife (with the cutting edge down) is entered at the upper outer limbus corneæ three to four millimeters above the horizontal meridian of the cornea, and is passed (within the anterior chamber) to the vertical meridian. The handle of the knife is raised toward the median line, and the cataract pierced at its upper border. The cutting edge is then turned forward, the handle elevated gently toward the forehead, and the knife pushed down behind the cataract until the point is opposite the desired lower border of the pupil. The handle is inclined to the temporal side, the cutting edge thus being directed forward to the cornea. Ordinarily the cataract will be divided before the point penetrates the cornea, but occasionally it may be neces-

sary to penetrate the cornea in order to divide the membrane. Under these circumstances care should be taken to make the puncture outside of the pupillary zone.

(2) *The extraction of secondary cataract.* This method is indicated in cases of opaque membranes of capsular origin, thick centrally and thin at the periphery. Such cataracts are readily detached with forceps without injury to the ciliary region.

(3) *Extraction of a portion of a secondary cataract after double horizontal section, including the cornea and the cataract.* A portion of the cataract is drawn through one of the transverse cuts and abscised. The author reports a case operated successfully by this method in which the membrane was one millimeter thick and grated on section.

Ocular Examinations of Criminals.—TRUC, DELORD and CHAVERNAC (*Ann. d'Ophtalm.*, January, 1904).—The authors undertook an ocular examination of 556 inmates of the Central Prison at Nimes with a view to determining the existence of ocular stigmata. They concluded that the prisoners examined did not present any notable peculiarity with respect to visual acuity, visual fields or color vision. Various ocular lesions observed did not present anything out of the ordinary.

BOOK REVIEWS.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. By CARL VON NOORDEN. Translated under the direction of Boardman Reed, M. D. E. B. Treat & Co., New York.

Part IV deals with the acid autointoxications. The sources of the acetone bodies, oxybutyric acid, diabetic acidosis, etc., are among the subjects touched upon. The pamphlet contains within a few pages the mature opinions and the results of years of work by the author, who is one of the greatest living authorities on metabolism and its disturbances.

A TREATISE ON DISEASES OF THE RECTUM, ANUS AND SIGMOID FLEXURE. By JOSEPH MATHEWS, M. D., L.L. D. Third edition. Revised. Appleton & Company, New York. 1903.

The author's reputation on the subject in hand gives to this work the stamp of approval. Some six hundred pages are devoted to the diseases of the rectum, anus and sigmoid, and yet there is nothing superfluous. The subject matter is well selected and fully considered. The illustrations are copious and well produced. For specialist and general practitioner alike the work has great value.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By JAMES M. ANDERS, M. D., Ph. D., L.L. D. Sixth edition. Thoroughly revised. W. B. Saunders & Company. 1903.

The fact that six editions of this work have appeared in as many years speaks for itself. Intended for the student and practitioner of medicine, it has been rendered up-to-date, concise and systematic in arrangement. Those subjects concerning which our knowledge has rapidly grown, such as malaria, yellow fever, bacillary dysentery, cholecystitis, etc., have been carefully dealt with. New diseases have been added, such as paratyphoid fever, the fourth disease, trypanosomiasis, orthostatic albuminuria, transcorical aphasia; etc. Diagnosis has received special attention, and the newer methods employed have all been touched upon. All in all, the work is complete and in every sense modern. It contains in a condensed and practical form the most important knowledge for the physician, gleaned from an immense mass of literature.

NOTHNAGEL'S ENCYCLOPÆDIA OF PRACTICAL MEDICINE—DISEASES OF THE STOMACH. By FRANZ RIEGEL. Edited with additions by CHARLES G. STOCKTON, M. D. Authorized translation from the German. Under the editorial supervision of ALFRED STENGEL, M. D. Philadelphia, New York and London: W. B. Saunders & Co. 1903.

No text-book on diseases of the stomach commands greater respect in Germany than that of Riegel. As an author he is known for his conservatism and simplicity. Any one who will carefully peruse the eight hundred and fifty pages herein contained will necessarily acquire a working knowledge of diseases of the stomach. The author's explanations are so complete, his views so definite, and methods so simple that one has no difficulty in interpreting his meaning.

Part I deals with methods of examinations in diseases of the stomach, examination of the stomach's contents, the treatment of diseases of the stomach in general, and the methods of curing and relieving diseases of the stomach; while Part II deals with special diagnosis and treatment of the diseases of the stomach. To all those desiring a special work on this subject, this volume cannot be too highly recommended.